

Annual Network Plan

**Covering Monitoring Operations in
25 California Air Districts**

July 2019



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Table of Contents

Executive Summary	ES-1
Section 1 Introduction	1
Section 2 Monitoring Network Overview	4
Section 3 Site and Monitoring Information	7
Section 4 Additional Information about the Monitors	13
Section 5 Federal Minimum Monitoring Requirements	18
5A Ozone	18
5B Nitrogen Dioxide	22
5C Carbon Monoxide	25
5D Sulfur Dioxide	26
5E Lead	27
5F PM ₁₀	28
5G PM _{2.5}	32
Section 6 Other Federal Monitoring Requirements	38
Section 7 Federal Quality Assurance Requirements	41
Section 8 Proposed and Recently Implemented Monitoring Site Changes	47
Section 9 Network Information Resources	50

Appendices

A: Detailed Site Reports	A-1
B: Ozone Seasonal Monitoring Waiver Request	B-1
C: Updated Waiver Request for 1-in-6 Day PM _{2.5} Monitoring	C-1
D: Supporting Documentation for Site Changes	D-1
E: Summary of Public Comments and CARB Responses	E-1

Abbreviations used in this document

ANP	Annual Network Plan
APCD	Air Pollution Control District
AQMD	Air Quality Management District
AQS	Air Quality System
ARD	Air Resources District
ARM	Approved Regional Method
AQDA	Air Quality Data Action
CAN	Corrective Action Notification
CARB	California Air Resources Board
CASTNET	Clean Air Status and Trends Network
CBSA	Core-Based Statistical Area
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CSN	Chemical Speciation Network
DV	Design Value
EMP	Enhance Monitoring Plan
FEM	Federal Equivalent Method
FRM	Federal Reference Method
IMPROVE	Interagency Monitoring of Protected Visual Environments
MATES	Multiple Air Toxics Exposure
MLD	Monitoring and Laboratory Division
NAAQS	National Ambient Air Quality Standard
NCore	National Core multipollutant network monitoring Station
NIST	National Institute of Standards and Technology
NO ₂	Nitrogen Dioxide
NPS	National Park Service
OMB	Office of Management and Budget
OTR	Ozone Transport Region
PAMS	Photochemical Assessment Monitoring Site
PM ₁₀	Particulate Matter with an aerodynamic diameter ≤10 micrometers
PM _{2.5}	Particulate Matter with an aerodynamic diameter ≤2.5 micrometers
PQAO	Primary Quality Assurance Organization
PWEI	Population Weighted Emissions Index
QAS	Quality Assurance Section
QMB	Quality Management Branch
QMS	Quality Management Section
SLAMS	State and Local Air Monitoring Site
SO ₂	Sulfur Dioxide
SPM	Special Purpose Monitor

STN	Speciated Trends Network
TPY	Tons per Year
TSA	Technical System Audit
U.S. EPA	U.S. Environmental Protection Agency
VOC	Volatile Organic Compound

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Executive Summary

The Annual Network Plan provides detailed information about criteria pollutant monitoring sites and instruments operating in California. Accurately measuring air quality is the foundation of California's efforts to reduce air pollution. For more than 50 years California has maintained one of the most extensive air monitoring networks in the world, collecting data on a wide range of pollutants. The information gathered from these networks makes it possible to track progress in cleaning the air and identify the most effective actions needed to meet health-based air quality standards.

The California Air Resources Board (CARB) and California's thirty-five local air districts, 25 of which are covered in this plan, have been measuring ambient air quality using a variety of stationary monitoring networks supplemented by mobile platforms including cars, aircraft, and ships. From the very beginning, California's air monitoring program has been a partnership between government agencies at the federal, state, and local level, along with universities and more recently with engaged community members and industry representatives.

California's different air monitoring networks are designed to meet a range of regulatory requirements, such as compliance with the federal Clean Air Act, as well as to help address research and public health priorities. Over time, the types of pollutants being monitored and the extent of the air monitoring networks have varied as a function of new legislative mandates, community concerns, as well as our success in improving air quality in many parts of California. Air monitoring data outreach such as the Air Quality and Meteorological Information System (AQMIS), Air Quality Index, and AirNow program allow people and companies to take precautions by avoiding the outdoors or minimizing activities that contribute to air pollution when levels are unhealthy.

This executive summary briefly describes the main types of monitoring that are conducted in California. The focus of this report is on criteria pollutant monitoring being conducted by governmental agencies using regulatory grade monitoring instruments. This report does not discuss the extensive networks of lower cost sensors installed by agencies, community groups, academics, and others.

Criteria Pollutant Monitoring

The majority of California's governmental air monitoring resources, reflected in the current statewide network of approximately 250 regulatory monitoring stations, have been dedicated to measuring ambient concentrations of criteria pollutants, which are ground-level ozone (O₃), particulate matter (PM₁₀ and PM_{2.5}), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead (Pb).

As detailed in the Annual Network Plan, for each of these criteria pollutants, the Code of Federal Regulation (CFR) specifies a list of acceptable instruments and methods, the frequency at which samples are to be collected, and how many instruments must be duplicated at the same location for each region. The CFR also details standards to be

used for locating air monitoring sites (such as population, local traffic counts, local emission sources, etc.), number of sites located in each region, and the appropriate scale (e.g., neighborhood, urban, and regional) for the spatial objective of the particular pollutant.

Data from these monitoring networks are used for determining the attainment status for national and State ambient air quality standards, supporting public information services, forecasting expected high pollution events, and supporting the development of emissions reduction programs. Monitoring data must undergo review and validation process by the agency collecting the data before the data is deemed final for regulatory purposes. Because this type of monitoring often requires significant infrastructure and resources, these methods have limitations for widespread deployment as part of community air monitoring efforts.

Additional Types of Air Monitoring Not Covered in the Annual Network Plan

Toxic Air Contaminants Monitoring: Beginning in the 1980s, with the recognition of the health risks posed by a wide range of chemicals, California and the local air districts deployed a network of approximately 35 air toxics monitoring stations. Each of these stations take regular air samples of 67 toxic compounds which are then analyzed using specialized equipment. A few examples are volatile organic compounds, carbonyl compounds, toxic metals, and hexavalent chromium.

Most air toxics monitoring methods involve collecting air samples in the field and returning them to the laboratory for subsequent analysis. One significant limitation is that data from these methods may take weeks, or in some cases months, after sampling to become available as these sophisticated methods often require labor-intensive analytical procedures. Air toxic monitoring data are used to identify sources contributing to air toxic pollution and trends in the concentration of air toxics over time. Data can be used to support regulatory and enforcement actions when collected in a scientifically defensible manner.

Greenhouse Gas Emission Monitoring: With the passage of the California Global Warming Solutions Act of 2006 (AB 32), CARB collaborated with federal agencies and universities to deploy a network of 15 tall towers and other stations across California to measure greenhouse gases (GHG), study regional GHG emissions trends throughout the state, and evaluate regional and statewide emissions inventories.

Evaluating regional and statewide GHG emissions requires highly accurate and precise measurements of ambient greenhouse gases. The GHG network currently uses state-of-the-art, air monitoring instrumentation (cavity ring-down spectrometry) to measure carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). In conjunction with the ground-based network, airborne and spaceborne remote sensing measurements are conducted to screen large spatial regions for methane “hot spots”.

Remote Sensing: Remote sensing instrumentation measures reflected or emitted radiation to collect information about air pollutant concentrations and meteorological conditions. Remote sensing instruments can be deployed on ground-based (mobile and stationary), airborne (i.e., aircraft), and spaceborne (i.e., satellites) platforms. Fence-line remote sensing applications can monitor emissions from facilities such as refineries. When deployed on aircraft or satellites, remote sensing systems can survey large spatial areas and identify the general location of concentrated air pollution.

Community-Scale Air Monitoring: Recognizing the need to understand air quality at the neighborhood level, CARB and the local air districts have periodically undertaken community-focused air monitoring studies. With the advent of low-cost air sensors in the last decade, many community groups and individuals are now also measuring air quality and deploying their own grassroots monitoring networks. As a result, there are now about a thousand community-focused air monitors deployed in a wide range of California neighborhoods by community members, universities, private entities, and government agencies.

Continued usage of fence-line monitoring, advancements in air sensors, and additional mobile monitoring studies are important pieces to local air monitoring programs. Community-level air monitoring programs are expected to continue expanding in California with the adoption of Assembly Bill 617 (AB 617) in 2017. Monitoring methods commonly used for community air monitoring include:

- **Fence-line Monitoring:** Fence-line monitoring is a monitoring strategy in which air quality is measured at the perimeter of a known or potential emission source. Air districts may require fence-line monitoring at facilities that emit or potentially emit air pollutants and greenhouse gases. Depending on the air pollutant that is expected to be emitted, fence-line monitoring can utilize a wide variety of measurement tools such as air sensors, passive samplers, remote sensing systems, and real-time instrumentation. This type of monitoring may be used to help determine where and when leaks are occurring, the rate emissions are leaving the source, and what chemicals are present. AB1647 and AB 617 include new requirements for enhanced fence-line and community monitoring in the vicinity of major stationary sources such as refineries.
- **Air Sensors:** Air quality sensors measure air pollutants on a real-time or near real-time basis and are generally low in cost, highly portable, and can require less power, siting infrastructure, and expertise than other air monitoring methods. Currently, no low-cost (i.e., \$2,000 or less) sensors meet federal reference or federal equivalent method requirements and many have not been robustly evaluated to determine the accuracy of their measurements. However, sensor technology is rapidly developing and performance is expected to improve over time. Sensors have the potential to provide hyper-local air quality data as part of coordinated, well-designed, community-led air monitoring efforts. The resulting data may be of sufficient quality to help understand spatial variability, identify areas with relatively higher pollutant concentrations for further investigation,

complement existing air monitoring networks, and evaluate personal exposure to air pollution.

- *Mobile Monitoring:* Mobile monitoring platforms collect environmental data while in motion, for example in a car or van. Instrumentation is utilized that can quickly measure air pollutant concentrations and provide instantaneous snapshots of air pollutant concentrations at a specific location and time. Mobile platforms can deploy a variety of instrumentation ranging from sensors, research-grade instrumentation, and remote sensing devices. Mobile platforms have the ability to measure real-time air pollutant concentrations at fine spatial gradients which can be used to identify persistent elevated pollutant concentrations and indicate potential contributing sources. These mobile monitoring platforms provide a valuable means of identifying areas that may need additional measurements and/or inspections or inquiries.

Conclusion

These monitoring networks and studies provide critical information for identifying and mitigating California's most significant air quality challenges. This Annual Network Plan documents California's network of regulatory ambient air quality monitors and describes how they meet Federal air monitoring and quality assurance requirements.

Section 1: Introduction

Federal regulations require state and local agencies that conduct ambient air monitoring for regulatory purposes to submit an Annual Network Plan (ANP) to the U.S. Environmental Protection Agency (U.S. EPA). ANPs are required to include detailed information about sites and instruments operating in the ambient air monitoring network. This ANP meets the federal regulatory requirements set forth in 40 CFR 58.10 and Appendices A through E.

The California Air Resources Board (CARB) Primary Quality Assurance Organization (PQAO) is comprised of 32 of the 35 air districts in California. The districts in the CARB PQAO may elect to prepare their own ANP or have their information included in the CARB ANP. The 2019 CARB ANP covers the monitoring networks of 25 districts within the CARB PQAO. Seven districts in the CARB PQAO will prepare their own ANPs and submit them directly to the U.S. EPA. Three other districts in California, the Bay Area Air Quality Management District (AQMD), San Diego County Air Pollution Control District (APCD), and South Coast AQMD represent their own PQAOs and are responsible for preparing their own ANPs and submitting them directly to U.S. EPA.

The 2019 ANP details the operations of the monitoring networks in 2018 and describes the changes that are planned to occur within the next 18 months. Consistent with direction from U.S. EPA, this ANP describes monitors operated by local districts, CARB, and other agencies such as the National Park Service (NPS), within the jurisdictions of the districts covered by this report. As required by federal regulations, this ANP includes detailed information about monitors using Federal Reference Methods (FRM), Federal Equivalent Methods (FEM), or Approved Regional Methods (ARM) that are included in the State and Local Air Monitoring (SLAMS) network, National Core (NCore) multipollutant monitoring station, Chemical Speciation Network (CSN), Special Purpose Monitor (SPM) stations, and Photochemical Assessment Monitoring Stations (PAMS).

Areas Covered in this Network Plan

The geographic boundaries of the 25 air districts covered in this ANP as well as the districts preparing their own ANPs are identified in Table 1 and Figure 1. Monitoring sites operated by districts that are not covered by this ANP are included when necessary to demonstrate fulfillment of federal monitoring requirements.

Public Inspection and Comment Period

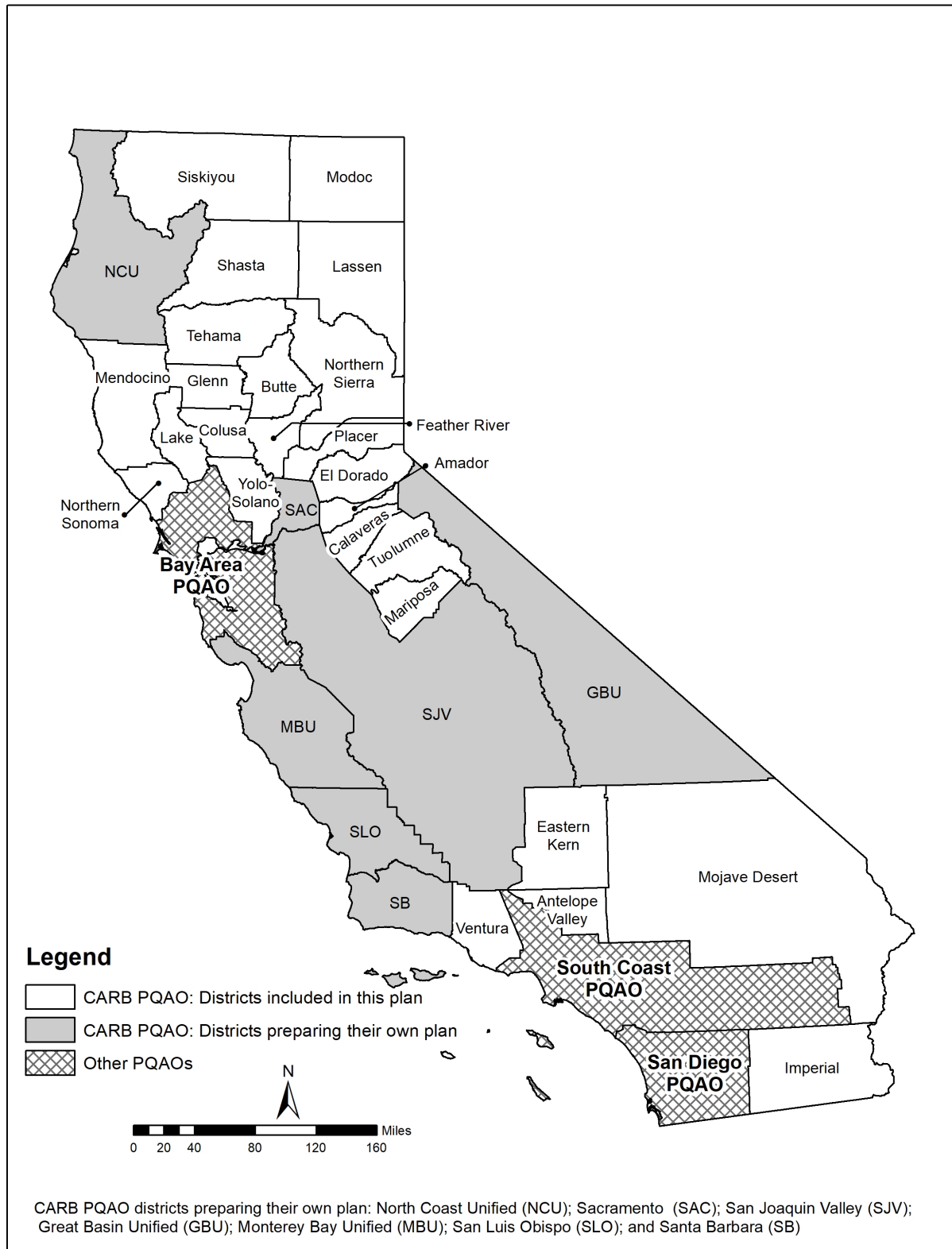
The CARB ANP will be available for a 30 day public inspection and comment period prior to its submittal to the U.S. EPA. If public comments are received, CARB will provide a response to the comments when the plan is submitted to the U.S. EPA. The final version of the CARB ANP is available for download from <http://www.arb.ca.gov/aqd/amnr/amnr.htm>.

Table 1: Districts in the CARB Primary Quality Assurance Organization

Districts Included in the CARB ANP	Districts Drafting Their Own ANP
Amador County APCD Antelope Valley AQMD Butte County AQMD Calaveras County APCD Colusa County APCD Eastern Kern APCD El Dorado County AQMD Feather River AQMD Glenn County APCD Imperial County APCD Lake County AQMD Lassen County APCD* Mariposa County APCD Mendocino County AQMD Modoc County APCD* Mojave Desert AQMD Northern Sierra AQMD Northern Sonoma County APCD Placer County APCD Shasta County AQMD Siskiyou County APCD Tehama County APCD Tuolumne County APCD Ventura County APCD Yolo-Solano AQMD	Great Basin Unified APCD Monterey Bay ARD North Coast Unified AQMD Sacramento Metropolitan AQMD San Joaquin Valley APCD San Luis Obispo County APCD Santa Barbara County APCD

* Lassen County APCD and Modoc County APCD are covered by this ANP; however, no ambient air quality monitors are currently sited in these districts.

Figure 1: California Primary Quality Assurance Organizations



Section 2: Monitoring Network Overview

California's ambient air monitoring network includes over 250 sites and more than 700 monitors, making it one of the most extensive in the world. Many regions in California are characterized by complex terrain, variable meteorological conditions, and diverse emission sources. A large monitoring network is critical for assessing the State's progress in meeting clean air objectives, understanding spatial and temporal variation in air pollutants, and evaluating pollutant exposure. Monitors are operated by CARB, local air districts, and other entities including the NPS, private contractors, and tribal authorities. Tribal monitors are not included in this report.

Ambient concentration data are collected for a wide variety of pollutants including ozone, particulate matter with a diameter of 2.5 microns or less (PM_{2.5}), particulate matter with a diameter of 10 microns or less (PM₁₀), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead (Pb), which are the federal criteria pollutants. Meteorological parameters, volatile organic compounds (VOC), and a host of toxic air contaminants are also monitored at a number of sites. While toxics, VOCs, and meteorological monitoring play an integral role in California's air quality programs, the focus of this ANP, as specified by federal requirements, is on sites that conduct monitoring of the federal criteria pollutants, as well as PAMS data, within the jurisdiction of districts covered by this ANP.

Although most sites monitor for multiple pollutants, not all pollutants are monitored at every site because the data needs vary by locale. One fundamental purpose of monitoring is to distinguish between areas where pollutant levels violate the ambient air quality standards and areas that meet ambient air quality standards. Areas in violation of a standard usually have increasingly stringent mandates to reduce the sources of pollution that result in the exceedances. Based in part on monitoring data, air quality agencies develop strategies, programs, and regulations to achieve needed emission reductions. Data from the ambient monitoring network are then used to assess the efficacy of those strategies, programs, and regulations.

The pollutants and the number of monitors at each monitoring site in the area covered by this ANP are shown in Table 2; additional site and monitor-level details are provided in Appendix A.

Table 2: Pollutants Monitored in the Districts Covered by this ANP

District	Site (AQS Number)	CO	NO ₂	Ozone	SO ₂	PM ₁₀	PM _{2.5}	CARB Operated
Amador	Jackson-Clinton (06-005-0002)			1				Yes
Antelope Valley	Lancaster-Division (06-037-9033)	1	1	1		1	1	
Butte	Chico-East (06-007-0008)	1	1	1		1	2	Yes
	Gridley (06-007-4001)						1	Yes
	Paradise-Airport (06-007-0007)			1				Yes
	Paradise-Theater (06-007-2002)						1	Yes
Calaveras	San Andreas (06-009-0001)			1		1	1	Yes
Colusa	Colusa-Sunrise Blvd (06-011-1002)			1		2	2	Yes
Eastern Kern	Canebrake (06-029-0017)					1		
	Mojave (06-029-0011)			1		1	1	Yes
	Ridgecrest-Ward (06-029-0018)					1	1	
El Dorado	Cool (06-017-0020)			1				Yes
	Echo Summit (06-017-0012)			1				Yes
	Placerville (06-017-0010)			1				Yes
	South Lake Tahoe (06-017-0011)					1		Yes
Feather River	Sutter Buttes (06-101-0004)			1				Yes
	Yuba City (06-101-0003)		1	1		1	2	Yes
Glenn	Willows-Colusa (06-021-0003)			1		1	1	Yes
Imperial	Brawley-Main (06-025-0007)					1	1	
	Calexico-Ethel (06-025-0005)	1	1	1	1	2	3	Yes
	El Centro-9th (06-025-1003)		1	1		1	1	
	Niland-English (06-025-4004)			1		1		
	Westmorland (06-025-4003)			1		1		
Lake	Anderson Spring (06-033-3010)					1		
	Glenbrook (06-033-3011)					1		
	Lakeport-S.Main (06-033-3002)			1		1	1	
Mariposa	Jerseydale (06-043-0006)			1				Yes
	Yosemite Village (06-043-1001)					1	1	Yes
	Yosemite NP-Turtleback (06-043-0003)*			1				
Mendocino	Fort Bragg-300 Dana (06-045-0010)					1		
	Ukiah-Gobbi (06-045-0008)			1				
	Ukiah-Library (06-045-0006)						1	
	Willits-Justice Center (06-045-2002)						1	
Mojave Desert	Barstow (06-071-0001)	1	1	1		1		
	Blythe-Murphy (06-065-9003)			1				Yes
	Hesperia-Olive (06-071-4001)			1		1		
	Joshua Tree-Black Rock (06-071-9002)*			1				
	Joshua Tree-Pinto Wells (06-065-1004)*			1				
	Lucerne Valley (06-071-0013)					1		
	Mojave NP (06-071-1001)*			1				
	Phelan (06-071-0012)			1				
	Trona-Athol/Telescope (06-071-1234)		1	1	1	1		
Northern Sierra	Victorville-Park (06-071-0306)	1	1	1	1	2	2	
	Chester (06-063-1007)						1	
	Grass Valley (06-057-0005)			1			2	
	Portola (06-063-1010)						3	
	Quincy-N Church (06-063-1006)						2	
	Truckee-Fire Station (06-057-1001)						2	
Northern Sonoma	White Cloud Mountain (06-057-0007) **			1				Yes
	Cloverdale (06-097-0001)					1		
	Guerneville-Church (06-097-3002)					1		
	Healdsburg-Matheson (06-097-0002)					1		
	Healdsburg-Airport (06-097-1003)			1				
Placer	Auburn-Atwood (06-061-0003)			1			1	
	Colfax-City Hall (06-061-0004)			1			1	
	Lincoln-Moore (06-061-2003)			1			1	
	Roseville-N Sunrise (06-061-0006)		1	1		1	3	Yes
	Tahoe City-Fairway (06-061-1004)			1			1	

Table 2 continued

District	Site	CO	NO ₂	Ozone	SO ₂	PM ₁₀	PM _{2.5}	CARB Operated
Shasta	Anderson-North (06-089-0007)			1		1		
	Lassen Volcanic NP (06-089-3003)*			1				
	Redding-Health Dept (06-089-0004)			1		1	1	
	Shasta Lake-Lake (06-089-0009)			1				
	Shasta Lake-La Mesa (06-089-0008)					1		
Siskiyou	Yreka (06-093-2001)			1		0	1	
Tehama	Red Bluff-Walnut (06-103-0007)			1		1	1	
	Tuscan Butte (06-103-0004)			1				Yes
Tuolumne	Sonora-Barretta (06-109-0005)			1				Yes
Ventura	El Rio-Rio Mesa School (06-111-3001)		1	1		1	1	
	Ojai-East Ojai (06-111-1004)			1			1	
	Piru-Pacific (06-111-0009)			1			1	
	Simi Valley-Cochran (06-111-2002)		1	1		1	2	
	Thousand Oaks (06-111-0007)			1			1	
Yolo-Solano	Davis-UCD Campus (06-113-0004)		1	1			1	Yes
	Vacaville-Merchant (06-095-3001)					1		
	Vacaville-Ulatis (06-095-3003)			1				
	West Sacramento-15 th (06-113-2001)					1		
	Woodland-Gibson (06-113-1003)			1		1	1	

* These sites are operated by National Park Service (NPS).

** White Cloud Mountain did not operate in 2018.

Note: CARB operating sites are delineated with grey shading.

Section 3: Site and Monitoring Information

U.S. EPA requires the federal site type, federal monitoring objective, and federal monitor type to be included in ANPs. These elements are described in the following sections and identified at the monitor-level in the detailed site reports in Appendix A.

Federal Site Type

Monitoring sites must be capable of informing air quality program managers about peak air pollution levels, typical levels in populated areas, air pollution transported into and out of a city or region, and air pollution levels near specific sources. For these reasons, U.S. EPA requires that each monitor at a site be designated, at a minimum, with one of the following site types established in the Air Quality System (AQS) database:

- Extreme Downwind
- Highest Concentration
- Maximum Ozone Concentration
- Maximum Precursor Emissions Impact
- Population Exposure
- Source Oriented
- Upwind Background
- General/Background
- Regional Transport
- Welfare Related Impacts
- Quality Assurance
- Other

U.S. EPA requires that a monitor be designated with an appropriate site type so that the data collected can be used to support a specific federal monitoring objective. The site type designations are at the monitor level rather than the site level because U.S. EPA has determined that a single site type may not be adequate to describe all of the monitors at a particular site.

Federal regulations note that the spatial scale of representativeness of a monitor should be consistent with the stated site type. The spatial scale of representativeness is a measure of the physical dimensions of the air mass through which pollutant concentrations are expected to be relatively homogeneous. The scales of representativeness that are most relevant to ambient air monitoring are defined as follows:

- *Microscale*: Measured concentrations are expected to be similar for an area ranging from several meters up to about 100 meters.
- *Middle scale*: Measured concentrations are expected to be similar for areas up to several city blocks in size with dimensions ranging from about 100 meters to 0.5 kilometer.

- *Neighborhood scale*: Measured concentrations are expected to be similar within some extended area of the city that has relatively uniform land use with dimensions in the 0.5 to 4.0 kilometers range.
- *Urban scale*: Measured concentrations are expected to be similar within an area of city-like dimensions, on the order of 4 to 50 kilometers.
- *Regional scale*: Measured concentrations are expected to be similar within a rural area of reasonably homogeneous geography without large sources, and extend from tens to hundreds of kilometers.
- *National and global scales*: These measurement scales represent concentrations characterizing the nation and the globe as a whole

The spatial scale of representativeness that is generally most appropriate for each of the most common federal site types are shown in Table 3, which is based on Table D-1 in Appendix D of 40 CFR 58. The types of monitoring sites and the spatial scales designated in the area covered by this ANP are listed in Table 4 and included in the detailed site reports in Appendix A. The site type is listed first following the spatial scale. Note that a monitor may have more than one site type.

Table 3: Site Type and Recommended Spatial Scale

Appropriate Site Type	Appropriate Spatial Scales
Highest concentration	Micro, middle, neighborhood (sometimes urban or regional for secondarily formed pollutants)
Population exposure	Neighborhood, urban
Source oriented	Micro, middle, neighborhood
General background	Urban, regional
Regional transport	Urban, regional
Welfare-related impacts	Urban, regional

Table 4: Site Type and Spatial Scale in the Districts Covered by this ANP

District	Site	CO	NO ₂	Ozone	SO ₂	PM ₁₀	PM _{2.5}
Amador	Jackson-Clinton			pop/ n			
Antelope Valley	Lancaster-Division	pop/ m	pop/ m	pop/ m		pop/ n	pop/ n
Butte	Chico-East	pop/ n	pop/ n	pop/ n		pop/ n	pop/ n
	Gridley						pop/ n
	Paradise-Airport			high/ r			
	Paradise-Theater						gen/ n
Calaveras	San Andreas			high/ n		gen/ n	gen/ n
Colusa	Colusa-Sunrise Blvd			gen/ r		high, pop/ n	pop/ n
Eastern Kern	Canebrake					gen,pop/ u	
	Mojave			high/ r		pop/ n	high/ n
	Ridgecrest-Ward					high/ n	pop/ n
	Cool			high/ r			
El Dorado	Echo Summit			trans/ r			
	Placerville			high/ r			
	South Lake Tahoe					pop/ m	
	Sutter Buttes			high,trans/ r			
Feather River	Yuba City		pop/ n	high/ n		pop/ n	pop/ n
Glenn	Willows-Colusa			pop/ n		pop/ n	pop/ n
Imperial	Brawley-Main					pop/ n	pop/ n
	Calexico-Ethel	pop/ n	pop/ n	gen/ n	pop/ n	pop/ n	pop/ n
	El Centro-9th		pop/ n	high/ n		pop/ n	pop/ n
	Niland-English			pop/ n		pop/ n	
	Westmorland			pop/ r		pop/ m	
	Anderson Spring					pop/ u	
Lake	Glenbrook					pop/ u	
	Lakeport-S.Main			pop/ u		gen/ n	pop/ n
Mariposa	Jerseydale			high/ r			
	Yosemite Village					pop/ m	pop/ m
	Yosemite NP-Turtleback*			gen/ r			
Mendocino	Fort Bragg-300 Dana					gen/ n	
	Ukiah-Gobbi			pop/ n			
	Ukiah-Library						pop/ n
	Willits-Justice Center						pop/ n
Mojave Desert	Barstow	pop/ m	pop/ m	pop/ m		pop/ n	
	Blythe-Murphy			gen/ n			
	Hesperia-Olive			pop/ n		gen,pop/ n	
	Joshua Tree-Black Rock			high/ r			
	Joshua Tree-Pinto Wells			gen/ r			
	Lucerne Valley					pop/ n	
	Mojave NP			gen/ r			
	Phelan			pop/ n			
	Trona-Athol/Telescope		source/ n	pop/ n	source/ n	high,source/ n	
Northern Sierra	Victorville-Park	pop/ n	pop/ n	pop/ n	pop/ n	pop/ n	trans,pop/ n
	Chester						pop/ n
	Grass Valley			pop/ n			pop/ n
	Portola						pop/ n
	Quincy-N Church						pop/ n
	Truckee-Fire Station						pop/ n
Northern Sonoma	White Cloud Mountain			gen/ r			
	Cloverdale					pop/ n	
	Guerneville-Church					pop/ n	
	Healdsburg-Matheson					pop/ n	
	Healdsburg-Airport			gen/ u			
Placer	Auburn-Atwood			pop/ n			pop/ n
	Colfax-City Hall			pop/ n			pop/ n
	Lincoln-Moore			pop/ n			pop/ n
	Roseville-N Sunrise		pop/ n	high/ n		high/ n	pop/ n
	Tahoe City-Fairway			gen/ u			gen/ u

Table 4 continued

District	Site	CO	NO ₂	Ozone	SO ₂	PM ₁₀	PM _{2.5}
Shasta	Anderson-North			pop/ n		high/ n	
	Lassen Volcanic NP*			gen/ r			
	Redding-Health Dept			pop,high/ n		high/ n	pop/ n
	Shasta Lake-Lake			pop/ n			
	Shasta Lake-La Mesa					pop/ n	
Siskiyou	Yreka			high,trans,pop/ n			pop/ n
Tehama	Red Bluff-Walnut			pop/ n		high/ n	gen/ n
	Tuscan Butte			high/ r			
Tuolumne	Sonora-Barretta			high/ n			
Ventura	El Rio-Rio Mesa School		pop/ u	pop/ u		pop/ n	pop/ n
	Ojai-East Ojai			pop/ u			pop/ n
	Piru-Pacific			pop/ n			high/ n
	Simi Valley-Cochran		high/ u	high/ u		pop/ n	high/ n
	Thousand Oaks			pop/ u			pop/ n
Yolo-Solano	Davis-UCD Campus		pop/ n	pop/ n			pop/ n
	Vacaville-Merchant					pop/ n	
	Vacaville-Ulatis			high, pop/ n			
	West Sacramento-15 th					pop/ n	
	Woodland-Gibson			pop/ n		pop/ n	pop/ n

Site Types:

gen- general background
high- highest concentration
pop- population exposure
trans- regional transport
source- source oriented

Spatial Scales:

m- middle scale
n- neighborhood scale
u- urban scale
r- regional scale

Federal Monitoring Objective

The federal monitoring objectives are defined in Appendix D of 40 CFR 58. Federal monitoring regulations require that each monitor measuring a criteria pollutant is sited to meet at least one monitoring objective. The three federal monitoring objectives are:

- To provide air quality data to the public in a timely manner;
- To support compliance with national ambient air quality standards; and
- To support air quality research studies.

Many air quality agencies operate monitors with multiple objectives in mind. For example, monitoring is conducted to provide both air quality data to the public as well as to support compliance with national ambient air quality standards. There are a number of monitoring purposes besides the federal monitoring objectives that are directly related to the needs of state and local agencies. Some of the most common state and local monitoring purposes include determination of agricultural and residential burn periods, geyser air monitoring, and state designations. These are outside of the scope of the ANP.

Federal Monitor Type

The federal monitor type refers to the agency operating the monitor or the specific purpose for which the monitor is operated. There are seven federal monitor types:

- SLAMS
- SPM
- Industrial
- Non-EPA federal
- Tribal
- EPA
- Other *

* U.S. EPA states that "Other" is intended for a monitor for a parameter not addressed by 40CFR Part 58. (i.e., it will not be allowed for criteria pollutants or monitoring network such as NCore, PAMs or NATTS).

Most monitors established and operated by state and local air agencies are identified as SLAMS. SLAMS monitors meet specific siting and quality assurance criteria defined in federal regulations. Some monitors are identified as SPMs, and are operated by state and local monitoring agencies to fulfill very specific or short-term monitoring goals. SPMs are required to meet 40 CFR Part 58 Appendix A requirements, and 40 CFR Part 58 Appendix E requirements are optional. Many SPMs operated in California by state and local agencies do fulfill these requirements. SPMs that operate for more than two years can be used by U.S. EPA to determine compliance with federal standards.

In this ANP all the monitors identified as non-EPA federal monitors are operated by the NPS. Industrial monitors and EPA monitors are not operated in the area covered by this ANP. Tribal monitors are operated on tribal lands by tribal entities and are outside of the scope of this ANP. Table 5 shows the types of monitors, their monitoring objectives and the network affiliations. Some monitors are operated under specific types of monitoring network programs. Example of the network affiliations are PAMS, NCore, Near-road and CSN. The full list can be found at <https://aqs.epa.gov/aqsweb/documents/codetables/networks.html>.

Table 5: Monitoring Objective, Monitor Type and Network Affiliation

District	Site	Monitoring Objective	Monitor Type*	Network Affiliation**
Amador	Jackson-Clinton	NAAQS Comparison	SLAMS	
Antelope Valley	Lancaster-Division	NAAQS Comparison, Public Info.	SLAMS	
Butte	Chico-East	NAAQS Comparison, Public Info.	SLAMS	CSN Supplemental
	Gridley	Public Info.	SLAMS	
	Paradise-Airport	NAAQS Comparison	SLAMS	
	Paradise-Theater	Public Info.	SLAMS	
Calaveras	San Andreas	NAAQS Comparison, Public Info.	SLAMS	
Colusa	Colusa-Sunrise Blvd	NAAQS Comparison	SLAMS	
Eastern Kern	Canebrake	NAAQS Comparison	SLAMS	
	Mojave	NAAQS Comparison	SLAMS	
	Ridgecrest-Ward	NAAQS Comparison	SLAMS	
	Cool	NAAQS Comparison	SLAMS	
El Dorado	Echo Summit	NAAQS Comparison	SLAMS	
	Placerville	NAAQS Comparison	SLAMS	
	South Lake Tahoe	NAAQS Comparison	SLAMS	
	Sutter Buttes	NAAQS Comparison	SLAMS	
Feather River	Yuba City	NAAQS Comparison, Public Info.	SLAMS	

Table 5 continued

District	Site	Monitoring Objective	Monitor Type*	Network Affiliation**
Glenn	Willows-Colusa	NAAQS Comparison, Public Info.	SLAMS	
Imperial	Brawley-Main	NAAQS Comparison	SLAMS	
	Calexico-Ethel	NAAQS Comparison, Public Info.	SLAMS	CSN Supplemental
	El Centro-9th	NAAQS Comparison	SLAMS	
	Niland-English	NAAQS Comparison	SLAMS	
	Westmorland	NAAQS Comparison	SLAMS	
Lake	Anderson Spring	Public Info.	SLAMS	
	Glenbrook	Public Info.	SLAMS	
	Lakeport-S.Main	NAAQS Comparison	SLAMS	
Mariposa	Jerseydale	NAAQS Comparison	SPM	
	Yosemite Village	NAAQS Comparison, Public Info.	SLAMS	
	Yosemite NP-Turtleback	NAAQS Comparison	non-EPA Federal	CASTNET
Mendocino	Fort Bragg-300 Dana	NAAQS Comparison	SLAMS	
	Ukiah-Gobbi	NAAQS Comparison	SLAMS	
	Ukiah-Library	NAAQS Comparison	SLAMS	
	Willits-Justice Center	NAAQS Comparison	SLAMS	
	Barstow	NAAQS Comparison	SLAMS	
Mojave Desert	Blythe-Murphy	NAAQS Comparison, Public Info.	SLAMS	
	Hesperia-Olive	NAAQS Comparison	SLAMS	
	Joshua Tree-Black Rock	NAAQS Comparison	non-EPA Federal	CASTNET
	Joshua Tree-Pinto Wells	Public Info.	non-EPA Federal	
	Lucerne Valley	NAAQS Comparison	SLAMS	
	Mojave NP	Public Info.	non-EPA Federal	
	Phelan	NAAQS Comparison	SLAMS	
	Trona-Athol/Telescope	NAAQS Comparison	SLAMS	
	Victorville-Park	NAAQS Comparison	SLAMS	
	Chester	NAAQS Comparison	SLAMS	
Northern Sierra	Grass Valley	NAAQS Comparison	SLAMS	
	Portola	NAAQS Comparison	SLAMS	CSN Supplemental
	Quincy-N Church	NAAQS Comparison	SLAMS	
	Truckee-Fire Station	NAAQS Comparison	SLAMS	
	White Cloud Mountain	NAAQS Comparison	SLAMS	
Northern Sonoma	Cloverdale	NAAQS Comparison	SLAMS	
	Guerneville-Church	NAAQS Comparison	SLAMS	
	Healdsburg-Matheson	NAAQS Comparison	SLAMS	
	Healdsburg-Airport	NAAQS Comparison	SLAMS	
Placer	Auburn-Atwood	NAAQS Comparison	SLAMS	
	Colfax-City Hall	NAAQS Comparison, Public Info.	SLAMS	
	Lincoln-Moore	NAAQS Comparison, Public Info.	SLAMS	
	Roseville-N Sunrise	NAAQS Comparison, Public Info.	SLAMS	
	Tahoe City-Fairway	NAAQS Comparison, Public Info.	SLAMS	
Shasta	Anderson-North	NAAQS Comparison	SLAMS	
	Lassen Volcanic NP	NAAQS Comparison, Research	non-EPA Federal	CASTNET
	Redding-Health Dept	NAAQS Comparison	SLAMS	
	Shasta Lake-Lake	NAAQS Comparison	SLAMS	
	Shasta Lake-La Mesa	NAAQS Comparison	SLAMS	
Siskiyou	Yreka	NAAQS Comparison	SLAMS	
Tehama	Red Bluff-Walnut	NAAQS Comparison	SLAMS	
	Tuscan Butte	NAAQS Comparison	SPM	
Tuolumne	Sonora-Barretta	NAAQS Comparison	SLAMS	
Ventura	El Rio-Rio Mesa School	NAAQS Comparison	SLAMS	PAMS
	Ojai-East Ojai	NAAQS Comparison	SLAMS	
	Piru-Pacific	NAAQS Comparison	SLAMS	
	Simi Valley-Cochran	NAAQS Comparison, Public Info.	SLAMS	PAMS
	Thousand Oaks	NAAQS Comparison	SLAMS	
Yolo-Solano	Davis-UCD Campus	NAAQS Comparison, Public Info.	SLAMS	
	Vacaville-Merchant	NAAQS Comparison	SLAMS	
	Vacaville-Ulatis	NAAQS Comparison	SLAMS	
	West Sacramento-15th	NAAQS Comparison	SLAMS	
	Woodland-Gibson	NAAQS Comparison	SLAMS	

* There are no other network types such as CSN, STN, IMPROVE, NATTS, NCore, or Near-road in the area covered by this ANP.

Section 4: Additional Information about the Monitors

Required Monitor Information

U.S. EPA regulations (40 CFR Part 58.10) require that the annual monitoring network plan lists specific additional information that characterizes the nature and location of the monitors. U.S. EPA Region 9 identified all of the information that is required on each site/monitor basis. The full list of required information is included in Table 6. This detailed information for each site can be found in the detailed site tables in Appendix A of this ANP.

Table 6: Required Detailed Monitoring Site Information

Site Name
Local site name
AQS ID
GPS coordinates (decimal degrees)
Street Address
County
Distance to roadways (meters)
Traffic count (AADT, year)
Groundcover (e.g. paved, vegetative, dirt, sand, gravel)
Representative statistical area name (i.e. MSA, CBSA, other)
Pollutant, POC
Primary / QA Collocated / Other
Parameter code
Basic monitoring objective(s)
Site type(s)
Monitor type
Network affiliation(s), if applicable
Instrument manufacturer and model
Method code
FRM/FEM/ARM/other
Collecting Agency
Analytical Lab (i.e. weigh lab, toxics lab, other)
Reporting Agency
Spatial scale (e.g. micro, neighborhood)
Monitoring start date
Current sampling frequency
Required sampling frequency
Sampling season
Probe height (meters)
Distance from supporting structure (meters)
Distance from obstructions on roof. Include horizontal distance + vertical height above probe for obstructions nearby (meters).
Distance from obstructions not on roof. Include horizontal distance + vertical height above probe for obstructions nearby (meters).
Distance from tree drip-lines (meters)
Distance to furnace or incinerator flue (meters)
Distance between monitors fulfilling a QA collocation requirement (meters).
Unrestricted airflow (degrees around probe/inlet or percentage of monitoring path)
Probe material for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls

Table 6 continued

Residence time for reactive gases NO/NO ₂ /NO _y , SO ₂ , O ₃ ; PAMS: VOCs, Carbonyls (seconds)
Will there be changes within the next 18 months? (Y/N)
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)
Frequency of flow rate verification for manual PM samplers, including Pb samplers
Frequency of flow rate verification for automated PM analyzers
Frequency of one-point QC check for gaseous instruments
Date of Annual Performance Evaluation conducted in the past calendar year for gaseous parameters
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors

Information on the continuous PM_{2.5} non-FEM monitors

The federal regulations require that monitors are Federal Reference Method (FRM), Federal Equivalent Method (FEM), or Approved Regional Method (ARM) and meet certain siting criteria in order for the data to be used for NAAQS comparison. While all continuous PM₁₀ monitors discussed in this report are FEM monitors, there are some continuous PM_{2.5} monitors that are non-FEMs. Table 7 lists the continuous PM_{2.5} non-FEM monitoring sites covered in this ANP. The continuous PM_{2.5} data reported from these non-FEM monitors are excluded from NAAQS comparison. However, these non-FEM monitors are California Approved Samplers (CAS) and the data are used for State designation and/or in AirNow for Air Quality Index reporting.

Table 7: Monitoring Site Operating Continuous PM_{2.5} Non-FEM monitors

District	Site
Butte	Chico-East Avenue (06-007-0008)
	Gridley (06-007-4001)
	Paradise-Theater (06-007-2002)*
Colusa	Colusa-Sunrise Blvd (06-011-1002)
Feather River	Yuba City (06-101-0003)
Glenn	Willows-Colusa (06-021-0003)
Imperial	Calexico (06-025-0005)
Mariposa	Yosemite Village (06-043-1001)
Northern Sierra	Chester (06-063-1007)
	Portola (06-063-1010)
	Quincy-N Church Street (06-063-1006)
	Truckee-Fire Station (06-057-1001)
Placer	Colfax-City Hall (06-061-0004)
	Lincoln-Moore Street (06-061-2003)
	Roseville-N Sunrise Ave (06-061-0006)
	Tahoe City-Fairway Drive (06-061-1004)
Yolo-Solano	Davis-UCD Campus (06-113-0004)

* This site was non-operational from 11/8/18 to 1/22/19.

Core-Based Statistical Areas

Appendix A of this ANP also lists the location of each monitor, including the Core-Based Statistical Area (CBSA) in which each monitor is located. CBSAs are defined by the United States Office of Management and Budget (OMB) and provide a consistent set of geographical areas for federal agencies to use in collecting, tabulating, and publishing statistical data. Two types of areas are included as CBSAs: Metropolitan Statistical Areas and Micropolitan Statistical Areas, which differ by population threshold. A Metropolitan Statistical Area has an urban core with a population of 50,000 or more, whereas a Micropolitan Statistical Area has an urban core with a population of at least 10,000, but less than 50,000. Several counties in California are sparsely populated and do not meet the classification requirements for incorporation into a CBSA (Figure 2).

U.S. EPA specifies the number of monitors required for each pollutant based on the CBSA. Table 8 contains a comprehensive list of CBSAs and associated air districts for California. Several of the 25 air districts covered by this ANP are located in CBSAs that also include air districts that are preparing their own ANPs. Information regarding monitors operated by districts outside of those covered by this ANP will be included in this plan when necessary to demonstrate fulfillment of federal monitoring requirements.

For CBSAs that include multiple districts, fulfillment of minimum monitoring requirements is dependent upon coordination between air monitoring staff, particularly when changes to the monitoring network are considered. The Roles and Responsibilities documents developed by CARB specify that districts and CARB must communicate with each other when changes to the network are being considered. When proposed changes are communicated between districts and CARB, staff from both agencies will work closely to evaluate impacts on minimum monitoring requirements and develop pathways that ensure federal requirements are met. The Roles and Responsibilities documents are available on the CARB website at http://www.arb.ca.gov/aaqm/qa/pqao/repository/rr_docs.htm.

Assessing the monitoring network

The Roles and Responsibilities outlined in the documents described above direct CARB to coordinate all site changes, as appropriate, with affected CARB divisions as well as local air districts. Any network changes are thoroughly reviewed and impacts on all CFR requirements are assessed. CARB and the local air districts work together closely to mitigate impacts of any changes to the monitoring network, particularly with regard to any changes that impact any violating monitors. Public comment is solicited through the annual network plan process and any comments received are addressed in either this document or in the documents of the individual district Annual Network Plans.

Figure 2: Core-Based Statistical Areas in California



U.S. DEPARTMENT OF COMMERCE Economics and Statistics Administration U.S. Census Bureau

Table 8: List of Core-Based Statistical Areas included in CARB ANP and Other ANP in California

CBSA Name*	County	Included in the CARB ANP?	Included in other ANP?
Bakersfield	Kern	Yes; Eastern Kern	San Joaquin Valley
Chico	Butte	Yes	- -
Clearlake	Lake	Yes	- -
Crescent City	Del Norte	No	North Coast Unified
El Centro	Imperial	Yes	- -
Eureka-Arcata-Fortuna	Humboldt	No	North Coast Unified
Fresno	Fresno	No	San Joaquin Valley
Hanford-Corcoran	Kings	No	San Joaquin Valley
Los Angeles-Long Beach-Anaheim	Los Angeles; Orange	Yes; Antelope Valley	South Coast
Madera	Madera	No	San Joaquin Valley
Merced	Merced	No	San Joaquin Valley
Modesto	Stanislaus	No	San Joaquin Valley
Napa	Napa	No	Bay Area
Oxnard-Thousand Oaks-Ventura	Ventura	Yes	- -
Red Bluff	Tehama	Yes	- -
Redding	Shasta	Yes	- -
Riverside-San Bernardino-Ontario	Riverside; San Bernardino	Yes, Mojave Desert	South Coast
Sacramento-Roseville-Arden Arcade	El Dorado; Placer; Sacramento; Yolo	Yes; Placer, Yolo-Solano, and El Dorado	Sacramento Metropolitan
Salinas	Monterey	No	Monterey Bay
San Diego-Carlsbad	San Diego	No	San Diego County
San Francisco-Oakland-Hayward	Alameda; Contra Costa; Marin; San Francisco; San Mateo	No	Bay Area
San Jose-Sunnyvale-Santa Clara	San Benito; Santa Clara	No	Bay Area
San Luis Obispo-Paso Robles-Arroyo Grande	San Luis Obispo	No	San Luis Obispo County
Santa Cruz-Watsonville	Santa Cruz	No	Monterey Bay
Santa Maria-Santa Barbara	Santa Barbara	No	Santa Barbara County
Santa Rosa	Sonoma	Yes; Northern Sonoma	Bay Area
Sonora	Tuolumne	Yes	- -
Stockton-Lodi	San Joaquin	No	San Joaquin Valley
Susanville	Lassen	Yes	- -
Truckee-Grass Valley	Nevada	Yes	- -
Ukiah	Mendocino	Yes	- -
Vallejo-Fairfield	Solano	Yes; Yolo-Solano	Bay Area
Visalia-Porterville	Tulare	No	San Joaquin Valley
Yuba City	Sutter; Yuba	Yes	- -

* Micropolitan Statistical Areas are delineated with grey shading.

Section 5: Federal Minimum Monitoring Requirements

For criteria pollutants, U.S. EPA has established minimum monitoring requirements that are specified in federal regulations (Appendix D of Title 40, Part 58 of the CFR). Generally, requirements are based on the population from the most recent census data, the severity of the air quality problem, as specified by the design value, or emissions.

This ANP uses 2010 Census populations to determine official minimum monitoring requirements. Upon direction from U.S. EPA, this ANP also includes the most recent available population census estimates (July 1, 2018) to estimate any changes to these requirements.

Section 5A: Ozone

Minimum Number of Ozone Monitoring Sites

The criteria for minimum monitoring requirements for ozone are shown in Table 9. The requirements are based on the population of the MSA and the magnitude of the design value (i.e. if the design value is greater or equal to 85% or less than 85% of the ozone standard). There are no minimum monitoring requirements outside of metropolitan statistical areas (i.e. areas with without an urban core or less than 50,000 people). NCore and SLAMS monitors can be used to meet minimum monitoring requirements for ozone. In the absence of a valid design value, requirements for “less than 85% of any ozone NAAQS” apply.

Table 9: Minimum Ozone Monitoring Requirements for SLAMS

Metropolitan Statistical Area population	Most recent 3-year design value concentrations ≥85% of any Ozone NAAQS	Most recent 3-year design value concentrations <85% of any Ozone NAAQS
>10 million	4	2
4 - 10 million	3	1
350,000 - <4 million	2	1
50,000 - <350,000	1	0

Within each Metropolitan Statistical Area, at least one site should be sited to capture maximum ozone concentrations and the site type should be identified as “Highest Concentration”. As shown in Table 10, the 11 metropolitan statistical areas covered by this ANP met the minimum ozone monitoring requirements for ozone in 2018. Sites from districts not covered by this ANP are also listed to provide a complete picture of all the sites contributing towards the minimum monitoring requirements in each Metropolitan Statistical Area. Note that percentages are relative to the 0.070 ppm ozone standard and high concentration sites are denoted with bold text.

SPMs and non-EPA Federal ozone monitors are operated in some areas covered by this ANP, but cannot be counted towards the minimum monitoring requirements. Information about these monitors is provided in Appendix A of this ANP.

Table 10: CBSAs with Minimum Ozone Monitoring Requirements

Metropolitan Statistical Area	2010 Census Population (2018 Population Estimate*)	2016-2018 Design Value (% of NAAQS) <i>DV Site</i>	Required # of Sites	SLAMS Sites Operating in 2018 (District where site is located) <i>Highest Concentration Sites Denoted by Bold Text</i>
Bakersfield	839,361 (896,764)	0.089 ppm (127%) <i>Arvin/ Edison</i>	2	Arvin-Di Giorgio (San Joaquin Valley) Bakersfield-5558 California Avenue (San Joaquin Valley) Bakersfield-Municipal Airport (San Joaquin Valley) Edison (San Joaquin Valley) Maricopa-Stanislaus Street (San Joaquin Valley) Mojave-923 Poole Street (Eastern Kern) Oildale-3311 Manor Street (San Joaquin Valley) Shafter-Walker Street (San Joaquin Valley)
Chico	220,000 (231,256)	0.079 ppm (113%) <i>Paradise</i>	1	Chico-East Avenue (Butte County) Paradise-4405 Airport Road (Butte County)
El Centro	174,528 (181,827)	0.077 ppm (110%) <i>Calexico</i>	1	Calexico-Ethel Street (Imperial) El Centro-9th Street (Imperial) Niland-English Road (Imperial) Westmorland (Imperial)
Los Angeles-Long Beach-Anaheim	12,828,837 (13,291,486)	0.103 ppm (147%) <i>Glendora</i>	4	Anaheim-Pampas Lane (South Coast) Azusa (South Coast) Compton-700 North Bullis Road (South Coast) Costa Mesa-Mesa Verde Drive (South Coast) Glendora-Laurel (South Coast) La Habra (South Coast) Lancaster-43301 Division Street (Antelope Valley) Long Beach-2425 Webster Street (South Coast) Los Angeles-LAX (South Coast) Los Angeles-North Main Street (South Coast) Mission Viejo-26081 Via Pera (South Coast) Pasadena-S Wilson Avenue (South Coast) Pico Rivera-4144 San Gabriel (South Coast) Pomona (South Coast) Reseda (South Coast) Santa Clarita (South Coast) West Los Angeles-VA Hospital (South Coast)
Oxnard-Thousand Oaks-Ventura	823,318 (850,967)	0.078 ppm (111%) <i>Simi Valley</i>	3	El Rio-Rio Mesa School #2 (Ventura) Ojai-Ojai Avenue (Ventura) Piru-3301 Pacific Avenue (Ventura) Simi Valley-Cochran Street (Ventura) Thousand Oaks-Moorpark Road (Ventura)
Redding	177,223 (180,040)	0.076 ppm (109%) <i>Shasta</i>	1	Anderson-North Street (Shasta County) Redding-Health Dept Roof (Shasta County) Shasta Lake-13791 Lake Blvd (Shasta County)

Table 10 Continued

Metropolitan Statistical Area	2010 Census Population (2018 Population Estimate*)	2016-2018 Design Value (% of NAAQS) DV Site	Required # of Sites	SLAMS Sites Operating in 2018 (District where site is located) <i>Highest Concentration Sites Denoted by Bold Text</i>
Riverside-San Bernardino-Ontario	4,224,851 (4,622,361)	0.111 ppm (159%) <i>Crestline/ San Bernardino</i>	3	Banning Airport (South Coast) Barstow (Mojave Desert) Blythe-445 West Murphy Street (Mojave Desert) Crestline (South Coast) Fontana-Arrow Highway (South Coast) Hesperia-Olive Street (Mojave Desert) Indio-Jackson Street (South Coast) Lake Elsinore-W Flint Street (South Coast) Mira Loma-Van Buren (South Coast) Palm Springs-Fire Station (South Coast) Perris (South Coast) Phelan (Mojave Desert) Redlands-Dearborn (South Coast) Riverside-Rubidoux (South Coast) San Bernardino-4th Street (South Coast) Trona-Athol and Telegraph (Mojave Desert) Upland (South Coast) Victorville-14306 Park Avenue (Mojave Desert) Winchester-33700 Borel Road (South Coast)
Sacramento-Roseville-Arden Arcade	2,149,127 (2,345,210)	0.088 ppm (126%) <i>Auburn/ Placerville</i>	2	Auburn-11645 Atwood Road (Placer County) Colfax-City Hall (Placer County) Cool-Highway 193 (El Dorado County) Davis-UCD Campus (Yolo-Solano) Echo Summit (El Dorado County) Elk Grove (Sacramento) Folsom (Sacramento) Lincoln-1445 1st Street (Placer County) North Highlands (Sacramento) Placerville-Gold Nugget Way (El Dorado County) Roseville-N Sunrise Blvd (Placer County) Sacramento-Del Paso Manor (Sacramento) Sacramento-Goldenland (Sacramento) Sacramento-T St (Sacramento) Sloughhouse (Sacramento) Tahoe City-221 Fairway Drive (Placer County) Woodland-Gibson Road (Yolo-Solano)
Santa Rosa	483,878 (499,942)	0.057 ppm (81%) <i>Healdsburg</i>	1	Healdsburg-Municipal Airport (Northern Sonoma) Sebastopol (Bay Area)
Vallejo-Fairfield	413,344 (446,610)	0.065 ppm (93%) <i>Vacaville</i>	2	Fairfield-Chadbourne Road (Bay Area) Vallejo-304 Tuolumne Street (Bay Area) Vacaville-Ulatis Drive (Yolo-Solano)
Yuba City	166,892 (174,848)	0.073 ppm (104%) <i>Sutter Buttes</i>	1	Sutter Buttes-S Butte (Feather River) Yuba City-Almond Street (Feather River)

* Source: U.S. Census Bureau. Retrieved from https://factfinder.census.gov/faces/nav/jsf/pages/download_center.xhtml

Seasonal Ozone Monitoring

The ozone monitoring season is year-round in California; however, monitoring at the six sites shown in Table 11 have operated on a seasonal basis since they were established. The ozone monitoring season for these sites was April through October, the period in which peak ozone is expected or when sites are physically accessible. A seasonal waiver for ozone monitoring in 2018 at these sites was granted by U.S. EPA. The waiver must be updated each year, and a copy of the waiver request for 2019 is provided in Appendix B.

Table 11: Seasonal Ozone Monitoring Sites

AQS Site ID	Site Name	District	Start Year
060170012	Echo Summit	El Dorado County	2000
060170020	Cool	El Dorado County	1996
060430006	Jerseydale	Mariposa County	1995
060570007	White Cloud Mountain*	Northern Sierra	1995
061010004	Sutter Buttes	Feather River	1993
061030004	Tuscan Butte	Tehama County	1995

*The White Cloud Mountain site has not operated since 2016 due to shelter and power issues. A date for the relocation and startup of a new site is unknown at this time

Section 5B: Nitrogen Dioxide (NO₂)

Minimum Number of NO₂ Monitoring Sites

Federal regulations specify three types of NO₂ minimum monitoring requirements:

- area-wide;
- near-road NO₂ monitoring, and;
- monitoring in communities with susceptible populations

Area-wide monitoring must be conducted in CBSAs with populations of one million or more. For these areas, a minimum of one monitor is required and should be sited to capture the highest concentrations at a neighborhood or larger spatial scale. PAMS sites can be used to meet area-wide minimum monitoring requirements if they meet siting criteria.

The CBSAs in California that meet the population thresholds for required area-wide NO₂ monitoring are the Los Angeles-Long Beach-Anaheim, Riverside-San Bernardino-Ontario, Sacramento-Roseville-Arden Arcade, San Diego-Carlsbad, San Francisco-Oakland-Hayward and San Jose-Sunnyvale-Santa Clara. The areas of expected highest concentration in these CBSAs are not within the jurisdictions of the districts covered by this ANP. As such, area-wide NO₂ monitoring for these CBSAs is addressed in the ANPs prepared by the South Coast AQMD, Sacramento Metropolitan AQMD, San Diego County APCD, and Bay Area AQMD. Although not required, NO₂ monitors are operated in several districts covered by this ANP. Information about these monitors can be found in Appendix A of this ANP.

Near-road NO₂ monitoring requirements are based on population of the CBSA and Annual Average Daily Traffic (AADT) counts on road segments within the CBSA. One monitor is required in CBSAs with a population of one million or more. A second monitor is required in CBSAs with a population greater than or equal to 2.5 million or CBSA's with populations greater than or equal to 1 million and roadway AADT greater than or equal to 250,000 on one or more road segments. Near-road monitors should be sited to capture maximum one hour concentrations at a micro spatial scale. The near-road requirements are being implemented in phases, over the course of several years. For informational purposes, all of the CBSAs in California that are required by current federal regulations to conduct near-road NO₂ monitoring are shown in Table 12.

The near-road areas with road segments with the highest AADT for the Bakersfield, Los Angeles-Long Beach-Anaheim, Riverside-San Bernardino-Ontario, and Sacramento-Roseville-Arden Arcade CBSAs are not within the jurisdiction of the districts covered by this ANP. Near-road NO₂ monitoring for these CBSAs in the CARB PQAQ is addressed in the ANPs prepared by the San Joaquin Valley APCD and the Sacramento Metropolitan AQMD. Information about near-road NO₂ monitoring for the other PQAQs in California can also be found in the ANPs prepared by the San Diego County APCD, South Coast AQMD and the Bay Area AQMD.

Table 12: CBSAs with Near-Road NO₂ Monitoring Requirements

CBSA	Population 2010 Census (2018 Population Estimate)	Area-wide Monitoring	Maximum AADT (2016)*	Required Near-road Sites	Near-road Sites Operating in 2018 (District where sites are located)
Bakersfield	839,361 (896,764)	No	154,000	1	- - (San Joaquin Valley) **
Fresno	930,450 (994,400)	No	167,000	1	Fresno-2482 Foundry Park (San Joaquin Valley)
Los Angeles-Long Beach-Anaheim	12,828,837 (13,291,486)	Yes	461,000	2	Anaheim-Route 5 (South Coast) Long Beach-Route 710 (South Coast)
Riverside-San Bernardino-Ontario	4,224,851 (4,622,361)	Yes	278,000	2	Ontario-Etiwanda (South Coast) Ontario-Route 60 (South Coast)
Sacramento-Roseville-Arden Arcade	2,149,127 (2,345,210)	Yes	260,000	2	Sacramento-Bercut Drive (Sacramento) - - **
San Diego-Carlsbad	3,095,313 (3,343,364)	Yes	305,000	2	Rancho Carmel Drive (San Diego) San Ysidro (San Diego) **
San Francisco-Oakland-Hayward	4,335,391 (4,729,484)	Yes	277,000	2	Laney College (Bay Area) Berkeley-Aquatic Park (Bay Area)
San Jose-Sunnyvale-Santa Clara	1,836,911 (1,999,107)	Yes	270,000	2	San Jose-Knox Ave (Bay Area) - - **

* Source: Traffic Census Program, California Department of Transportation <http://www.dot.ca.gov/trafficops/census/>.

** Near-road sites were in the planning/construction stages and not yet operating in 2018.

Federal regulations also require area-wide NO₂ monitoring in select areas with susceptible and vulnerable populations. The locations of these areas in California were determined by the U.S. EPA Regional Administrator and are shown in Table 13 along with the responsible monitoring agency. More information on this monitoring can be found in the ANPs prepared by the Bay Area AQMD, the San Diego County APCD, the San Joaquin Valley APCD and the South Coast AQMD.

Table 13: NO₂ Regional Administrator Required Monitoring Site

District	Site (AQS ID)
San Diego	Sherman Elementary School (060731026)*
Bay Area	Oakland West (060010011)
San Joaquin Valley	Parlier (060194001)
	Bakersfield-Muni (060292012)**
South Coast	Long Beach North (060374002)
	Los Angeles-Main St. (060371103)
	San Bernardino (060719004)

* Not operational yet. San Diego APCD 2017 Annual Monitoring Network Plan discussed the site has been approved by EPA is currently undergoing construction. Sampling is suspended until the new station is built.

** The San Joaquin 2018 Air Monitoring Network Plan discussed Bakersfield Muni as the required NO₂ monitoring site for susceptible and vulnerable populations.

Section 5C: Carbon Monoxide (CO)

Minimum Number of CO Monitoring Sites

The only federal requirement for CO monitoring is for near-road CO monitoring. In CBSAs with a population of one million or more, one CO monitor is required to operate collocated with one near-road NO₂ monitor. If a CBSA has more than one near-road NO₂ monitoring site, a CO monitor is only required at one near-road site in the CBSA. The CO monitor was required to be operational by January 1, 2015 in CBSAs with a population more than 2.5 million, and by January 1, 2017 for all other CBSAs.

Table 14: CBSAs with CO Minimum Monitoring Requirements

CBSA	Population 2010 Census (2018 Population Estimate)	Required # of Near-road Sites	Near-road Sites Operating in 2018
Los Angeles-Long Beach- Anaheim	12,828,837 (13,291,486)	1	Anaheim-Route 5 (South Coast)
Riverside-San Bernardino-Ontario	4,224,851 (4,622,361)	1	Ontario-Etiwanda (South Coast)
Sacramento-Roseville- Arden Arcade	2,149,127 (2,345,210)	1	Sacramento-Bercut Drive (Sacramento)
San Diego-Carlsbad	3,095,313 (3,343,364)	1	Rancho Carmel Dr. (San Diego)
San Francisco-Oakland- Hayward	4,335,391 (4,729,484)	1	Laney College (Bay Area) Berkeley-Aquatic Park (Bay Area)
San Jose-Sunnyvale- Santa Clara	1,836,911 (1,999,107)	1	San Jose-Knox Ave (Bay Area)

As shown in Table 14, three CBSAs that include a district covered by this ANP meet the population threshold and have minimum monitoring requirements for CO; however, the near-road areas with road segments with the highest AADT for the Los Angeles-Long Beach-Anaheim, Riverside-San Bernardino-Ontario, and Sacramento-Roseville-Arden Arcade, CBSAs are not within the areas covered by this ANP. Subsequently, near-road monitoring for these CBSAs is addressed in the ANPs prepared by the South Coast AQMD, Bay Area AQMD, and the Sacramento Metropolitan AQMD. Several districts covered by this ANP conduct area-wide CO monitoring. CO concentrations at area-wide monitors are well below the standard, and California has long attained federal and State CO standards. Information about these monitors is provided in Appendix A.

Regional Administrators may require additional CO monitoring in other areas where data or other indicators suggest that concentrations may approach or exceed the NAAQS.

Section 5D: Sulfur Dioxide (SO₂)

Minimum Number of SO₂ Monitoring Sites

Monitoring regulations for SO₂ are based on the population weighted emissions index (PWEI) in a CBSA. The PWEI considers population and aggregated county-level emissions data and is calculated using the equation:

$$CBSA\ PWEI = \frac{CBSA\ Population \times \sum_{County} Emission}{1,000,000}$$

One monitor is required in CBSAs with PWEIs equal to or greater than 5,000 but less than 100,000; two monitors are required in CBSAs with PWEIs equal to or greater than 100,000 but less than one million; and three monitors are required in CBSAs with PWEI values of one million or more. As shown in Table 15, two CBSAs that contain a district covered by this plan meet the PWEI threshold and have minimum monitoring requirements for SO₂. Site types identified as population exposure, high concentration, source oriented, general background, or regional transport can satisfy minimum monitoring requirements. SO₂ monitors at NCore sites shall be counted toward minimum monitoring requirements.

The most recent data available to calculate PWEI were the 2010 U.S. census data and emissions data from the 2015 CARB Emission Inventory.

Table 15: CBSAs with Minimum Monitoring Requirements for SO₂

CBSA	District covered by this ANP	Other District ANPs covering this CBSA	County SO ₂ (TPY) (2015 Data)	Population 2010 Census (2018 Population Estimate)	PWEI	Required Sites	SLAMS Sites Operating in 2017
Los Angeles-Long Beach-Anaheim	Antelope Valley AQMD	South Coast AQMD	Los Angeles: 5,256	12,828,837 (13,291,486)	73,522 (76,174)	1	Costa Mesa (South Coast) Fontana (South Coast) Long Beach (South Coast) Los Angeles-Main Street (South Coast) Los Angeles-Hastings (South Coast)
			Orange: 475				
Riverside-San Bernardino-Ontario	Mojave Desert AQMD	South Coast AQMD	Riverside: 329	4,224,851 (4,622,361)	8,023 (8,778)	1	Rubidoux (South Coast) Trona (Mojave Desert) Victorville (Mojave Desert)
			San Bernardino: 1,570				

All districts covered by this ANP met the minimum monitoring requirements for SO₂ in 2017. In December 2017, U.S. EPA designated all areas of California as unclassifiable/attainment for the federal SO₂ standard.

Section 5E: Lead (Pb)

Minimum Number of Pb Monitoring Sites

Monitoring is required near Pb sources which are expected or have been shown to contribute to a maximum Pb concentration in excess of the federal standard. Specifically, monitoring is required at airports which emit more than 1.0 tons per year or non-airport sources which emit 0.50 tons per year or more of Pb. None of the areas covered by this ANP exceed the threshold for source monitoring.

Pb monitoring at NCore site is no longer required. However, agencies that operate NCore site are required to obtain approval to terminate an existing Pb monitor.

Section 5F: PM₁₀

Minimum Number of PM₁₀ Monitoring Sites

Monitoring requirements for PM₁₀ are based on population and air quality conditions in each metropolitan statistical area. The criteria for determining the minimum number of monitoring sites is listed in Table 16. The number of sites is given as a range rather than an absolute number because the goal of establishing a network of monitoring sites is to characterize national and regional air quality trends and geographic patterns, which can vary in complexity from place to place.

Table 16: Minimum Monitoring Requirements for PM₁₀ Monitoring Sites

Population	High Concentration (Exceeds NAAQS by ≥20%)	Medium Concentration (≥80% of NAAQS)	Low Concentration (<80% of NAAQS)
> 1 million	6 – 10 sites	4 – 8 sites	2 – 4 sites
500,000 - 1 million	4 – 8 sites	2 – 4 sites	1 – 2 sites
250,000 - 500,000	3 – 4 sites	1 – 2 sites	0 – 1 sites
100,000 - 250,000	1 – 2 sites	0 – 1 sites	0 sites

The number of required monitoring sites in CBSAs with populations ≥ 100,000 are shown in Table 17. Only sites designated as SLAMS may be counted to meet PM₁₀ minimum monitoring requirements. In contrast to the information presented on the gaseous monitoring network, sites outside of the scope of this ANP are only included in Table 17 if needed to meet minimum monitoring requirements because of the complex nature of PM monitoring.

Eleven Metropolitan Statistical Areas include at least a portion of the areas covered by this ANP. The Los Angeles-Long Beach-Anaheim Metropolitan Statistical Area includes the Antelope Valley AQMD; however, most of the area is under the jurisdiction of the South Coast AQMD. Monitoring sites operated by South Coast AQMD are necessary to meet minimum monitoring requirements for PM₁₀ and include sites located in areas where high concentrations are expected. The sole monitoring site run by Antelope Valley AQMD is not needed to meet minimum monitoring requirements for this area but serves to complement the network of monitors operated by South Coast.

The monitors operated in districts covered by this ANP are adequate to meet minimum monitoring requirements in the remaining ten Metropolitan Statistical Areas; however, there are additional monitors operated in these areas that are in jurisdictions outside of the scope of this ANP. Information about these monitors can be found in the ANPs prepared by the South Coast AQMD, San Joaquin Valley APCD, and the Sacramento Metropolitan AQMD.

Table 17: CBSAs with Minimum Monitoring Requirements for PM₁₀

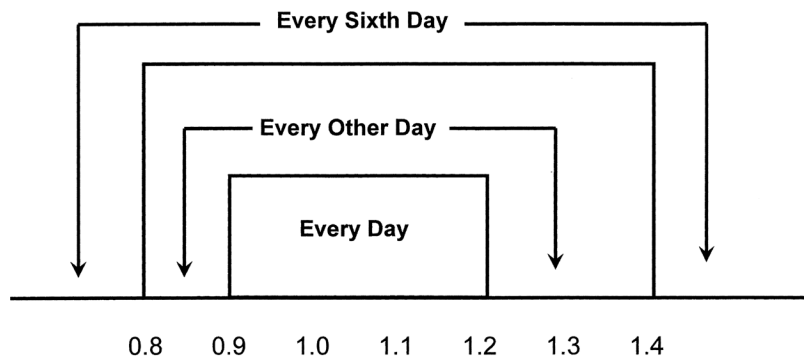
Metropolitan Statistical Area	2010 Census Population (2018 Population Estimate)	2018 Max Concentration ¹ (% of NAAQS) <i>Max Concentration Site (District where site is located)</i>	Required Sites	SLAMS Sites Operating in 2018 (District where site is located)
Bakersfield	839,361 (896,764)	175 ug/m ³ (116%) <i>Oildale (San Joaquin)</i>	2-4	Canebrake (Eastern Kern) Mojave (Eastern Kern) Ridgecrest (Eastern Kern) Bakersfield-California (San Joaquin) Bakersfield-Golden (San Joaquin) Oildale (San Joaquin)
Chico	220,000 (231,256)	454 ug/m ³ (303%) <i>Chico-East Ave (Butte County)</i>	1-2	Chico-East Ave (Butte County)
El Centro	174,528 (181,827)	414 ug/m ³ (277%) <i>Westmorland (Imperial County)</i>	1-2	Brawley (Imperial County) Calexico-Ethel St (Imperial County) El Centro (Imperial County) Niland (Imperial County) Westmorland (Imperial County)
Los Angeles-Long Beach-Anaheim	12,828,837 (13,291,486)	130 ug/m ³ (86%) <i>Anaheim-Pampas (South Coast)</i>	4-8	Lancaster (Antelope Valley) Anaheim-Pampas Ln (South Coast) Azusa (South Coast) Glendora-Laurel (South Coast) Long Beach-PCH (South Coast) Long Beach-Webster (South Coast) Los Angeles-N Main St (South Coast) Los Angeles-LAX (South Coast) Mission Viejo (South Coast) Santa Clarita (South Coast)
Oxnard-Thousand Oaks-Ventura	823,318 (850,967)	209 ug/m ³ (139%) ¹ <i>El Rio (Ventura County)</i>	4-8	Simi Valley (Ventura County) El Rio (Ventura County)
Redding	177,223 (180,040)	166 ug/m ³ (111%) <i>Redding (Shasta County)</i>	0-1	Redding (Shasta County) Anderson (Shasta County) Shasta Lake (Shasta County)
Riverside-San Bernardino-Ontario	4,224,851 (4,622,361)	422 ug/m ³ (281%) <i>Palm Springs (South Coast)</i>	6-10	Barstow (Mojave Desert) Lucerne Valley (Mojave Desert) Victorville (Mojave Desert) Trona (Mojave Desert) Hesperia (Mojave Desert) Banning (South Coast) Crestline (South Coast) Indio-Jackson St (South Coast) Mecca (South Coast) Palm Springs (South Coast)
Sacramento-Roseville-Arden Arcade	2,149,127 (2,345,210)	292 ug/m ³ (196%) <i>Sacramento-T St (Sacramento)</i>	6-10	So. Lake Tahoe (El Dorado County) Roseville-N Sunrise (Placer County) North Highlands (Sacramento) Del Paso (Sacramento) Sacramento-T St (Sacramento) Sacramento-Goldenland (Sacramento) Sacramento-Branch (Sacramento) Woodland-Gibson Rd (Yolo-Solano) West Sacramento (Yolo-Solano)
Santa Rosa	483,878 (499,942)	259 ug/m ³ (173%) <i>Healdsburg (Northern Sonoma)</i>	3-4	Cloverdale (Northern Sonoma) Healdsburg (Northern Sonoma) Guerneville (Northern Sonoma)
Vallejo-Fairfield	413,344 (446,610)	123 ug/m ³ (82%) <i>Vacaville-Merchant St (Yolo-Solano)</i>	1-2	Vacaville-Merchant St (Yolo-Solano)
Yuba City	166,892 (174,848)	318 ug/m ³ (212%) <i>Yuba City-Almond St (Feather River)</i>	1-2	Yuba City-Almond St (Feather River)

¹ Many sites were impacted by wildfire smoke in 2018. Some of these impacts will be addressed under the Exceptional Event Rule (81 FR 68216) while others did not lead to exceedances of the standard but impacted the minimum monitoring requirements. Sites in several of these MSAs have consistently recorded PM₁₀ concentrations below the NAAQS, with an average concentration for the last decade below 80% of the standard. Existing monitoring meets the needs of the local air districts and the communities; CARB is committed to working with U.S. EPA and the local air districts to ensure that monitoring levels continue to protect public health and safety.

PM₁₀ Sampling Frequency Requirements for Primary FRM Monitors

Federal regulations establish procedures for determining an appropriate sampling frequency for PM₁₀ monitors. All 24-hour samples must be taken from midnight to midnight, local standard time, to ensure consistency among measurements nationwide. Figure 3, reproduced from Figure 1 in 40 CFR 58.12e, shows the required sampling frequency based upon the ratio of the design value to the standard.

Figure 3: Required Sampling Frequency for manual PM₁₀ monitors



The calculated required sampling frequencies for all FRM PM₁₀ monitors in the districts covered by this ANP are shown in Table 18. Note that exceptional events are included in the concentrations shown.

Table 18: Required Sampling Frequency for PM₁₀ FRM Monitors

Site Name	District	AQS ID	2018 Max Concentration	Ratio of Max Concentration to Standard	Required Sampling Frequency ¹	Current Sampling Frequency
Ridgecrest ² (W. California)	Eastern Kern	060290015-1	53	0.34	1:6	See footnote
Canebrake	Eastern Kern	060290017-1	52	0.34	1:6	1:6
Anderson Springs	Lake	060333010-1	148	0.96	1:1	1:6
Glenbrook	Lake	060333011-1	86	0.56	1:6	1:6
Lakeport	Lake	060333002-1	176	1.14	1:1	1:6
Anderson	Shasta	060890007-1	113	0.73	1:6	1:6
Redding	Shasta	060890004-2	166	1.08	1:1	1:6
Shasta Lake	Shasta	060890008-1	145	0.94	1:1	1:6
Red Bluff	Tehama	061030007-1	102	0.66	1:6	1:6
Vacaville	Yolo-Solano	060953001-2	123	0.79	1:6	1:6
West Sacramento	Yolo-Solano	061132001-1	229	1.49	1:6	1:6
Woodland	Yolo-Solano	061131003-1	201	1.31	1:2	1:6

¹ Wildfires in 2018 impacted many monitoring sites covered in this ANP. Based solely on these exceptional events, several of these monitoring sites moved into a higher sampling frequency category. Two of these sites are still below the standard (Anderson Springs and Shasta Lake), so the impacted concentrations do not qualify for an exceptional event demonstration. CARB is working with local air districts to evaluate sampling frequency at all monitoring sites impacted by the massive wildfires.

² Ridgecrest-W California (060290015) closed on 3/16/18

Section 5G: PM_{2.5}

Minimum Number of PM_{2.5} Monitoring Sites

The minimum number of monitoring sites that are required for the PM_{2.5} network is based on population and air quality within each metropolitan statistical area, as shown in Table 19. Each Metropolitan Statistical Area is required to have at least one monitoring site situated to measure maximum concentrations at a neighborhood or larger scale.

Table 19: Minimum Monitoring Requirements for PM_{2.5}

Population	DV ≥ 85% of any PM _{2.5} NAAQS	DV < 85% of any PM _{2.5} NAAQS
> 1 million	3 sites	2 sites
500,000 - 1 million	2 sites	1 site
50,000 - <500,000	1 site	0 sites

Only SLAMS sites situated to measure concentrations that are representative of area-wide PM_{2.5} concentrations should be used to meet minimum monitoring requirements. NCore and PAMS sites can count towards meeting minimum monitoring requirements if the site(s) are representative of area-wide PM_{2.5} concentrations. In contrast to the information presented on the gaseous monitoring network, sites outside of the scope of this ANP were only included in Table 20 if needed to meet minimum monitoring requirements because of the complex nature of PM monitoring.

PM_{2.5} Near-Road Monitoring

Federal regulations require that at least one PM_{2.5} monitor is collocated at a near-road NO₂ monitoring site in CBSAs with a million or more people. No near-road sites are located in the areas covered by this ANP. Information about near-road sites can be found in the ANPs prepared by the Bay Area AQMD, Sacramento Metropolitan AQMD, and South Coast AQMD.

PM_{2.5} Continuous Monitoring

Federal regulations require that at least half of the minimum number of required monitors operated in each Metropolitan Statistical Area should be continuous monitors. In each Metropolitan Statistical Area, at least one continuous monitor should be collocated with a required FRM/FEM/ARM monitor unless one of the required monitors is a continuous monitor. Sites outside of the scope of this ANP were only included in Table 21 if needed to meet minimum monitoring requirements.

Table 20: CBSAs with Minimum Monitoring Requirements for PM_{2.5}

Metropolitan Statistical Area	2010 Census Population (2018 Population Estimate)	2018 Design Value (% of NAAQS) ¹ Design Value Site (District where site is located)		Required Sites	SLAMS Sites Operating in 2018 (District where site is located) Highest Concentration Sites Denoted by Bold Text
		24-hour	Annual		
Bakersfield	839,361 (896,764)	63 ug/m ³ (180%) <i>Bakersfield-California</i> (San Joaquin)	17.8 ug/m ³ (148%) <i>Bakersfield-Planz</i> (San Joaquin)	2	Bakersfield-California (San Joaquin) Bakersfield-Planz (San Joaquin) Mojave (Eastern Kern) Ridgecrest (Eastern Kern)
Chico	220,000 (231,256)	38 ug/m ³ (109%) <i>Chico-East Ave</i> (Butte County)	10.1 ug/m ³ (84%) <i>Chico-East Ave</i> (Butte County)	1	Chico-East Ave (Butte)
El Centro	174,528 (181,827)	35 ug/m ³ (100%) <i>Calexico-Ethel St</i> (Imperial County)	12.6 ug/m ³ (105%) <i>Calexico-Ethel St</i> (Imperial County)	1	Brawley (Imperial) Calexico-Ethel St (Imperial) El Centro (Imperial)
Los Angeles-Long Beach-Anaheim	12,828,837 (13,291,486)	38 ug/m ³ (109%) <i>Compton-N Bullis</i> (South Coast)	12.7 ug/m ³ (106%) <i>Long Beach-Rte 710</i> (South Coast)	3	Lancaster (Antelope Valley) Compton-N Bullis (South Coast) Long Beach-Rte 710 (South Coast)
Oxnard-Thousand Oaks-Ventura	823,318 (850,967)	45 ug/m ³ (129%) <i>Ojai</i> (Ventura County)	11.0 ug/m ³ (92%) <i>Ojai</i> (Ventura County)	2	El Rio (Ventura) Ojai (Ventura) Piru (Ventura) Simi Valley (Ventura) Thousand Oaks (Ventura)
Redding	177,223 (180,040)	49 ug/m ³ (140%) <i>Redding</i> (Shasta County)	9.6 ug/m ³ (80%) <i>Redding</i> (Shasta County)	1	Redding-Health Dept (Shasta) ²
Riverside-San Bernardino-Ontario	4,224,851 (4,622,361)	36 ug/m ³ (103%) <i>Mira Loma</i> (South Coast)	14.7 ug/m ³ (123%) <i>Ontario</i> (South Coast)	3	Victorville (Mojave Desert) Mira Loma (South Coast) Ontario (South Coast)
Sacramento-Roseville-Arden Arcade	2,149,127 (2,345,210)	50 ug/m ³ (143%) <i>Woodland</i> (Yolo-Solano)	10.4 ug/m ³ (87%) <i>Del Paso</i> (Sacramento) ³	3	Auburn-Atwood St (Placer County) Del Paso-Avalon Dr (Sacramento) Roseville-N Sunrise Blvd (Placer) Sacramento-Bercut (Sacramento) Woodland (Yolo-Solano)
Santa Rosa	483,878 (499,942)	34 ug/m ³ (97%) <i>Sebastopol-Morris</i> (Bay Area)	7.0 ug/m ³ (58%) <i>Sebastopol-Morris</i> (Bay Area)	1	Sebastopol-Morris St (Bay Area)
Vallejo-Fairfield	413,344 (446,610)	48 ug/m ³ (137%) <i>Vallejo</i> (Bay Area)	10.8 ug/m ³ (90%) <i>Vallejo</i> (Bay Area)	1	Vallejo-Tuolumne St (Bay Area)
Yuba City	166,892 (174,848)	30 ug/m ³ (86%) <i>Yuba City</i> (Feather River)	9.2 ug/m ³ (77%) <i>Yuba City</i> (Feather River)	1	Yuba City-Almond St (Feather River)

¹ Many monitoring sites were impacted by wildfire smoke in 2018. Some of these impacts will be addressed under the Exceptional Event Rule (81 FR 68216) while others did not lead to exceedances of the standard but impacted the minimum monitoring requirements. CARB is working with local air districts to evaluate minimum monitoring requirements for all impacted areas.

² The Redding PM_{2.5} FRM monitor will be replaced with an FEM monitor in Spring of 2019. This monitor will operate as a Special Purpose Monitor (SPM) for the next two years.

³ A higher design value (at Sacramento-Bercut), with Validity Indicator = N, is noted for this MSA. This does not affect the number of required sites for this area.

Table 21: CBSAs with Minimum Monitoring Requirements for Continuous PM_{2.5}

Metropolitan Statistical Area	Minimum # of Required Sites	Required Continuous Monitors	Sites with Continuous Monitors Operating in 2018 (District where site is located)
Bakersfield	2	1	Mojave (Eastern Kern) Ridgecrest (Eastern Kern)
Chico	1	1	Chico-East Ave (Butte)* Gridley (Butte)* Paradise (Butte)*
El Centro	1	1	Calexico (Imperial)*
Los Angeles-Long Beach-Anaheim	3	2	Lancaster (Antelope Valley) Anaheim (South Coast)* Glendora-Laurel (South Coast)* Long Beach-Rte 710 (South Coast) Long Beach-South (South Coast)** Los Angeles-N Main St (South Coast)** Reseda (South Coast)* Santa Clarita (South Coast)*
Oxnard-Thousand Oaks-Ventura	2	1	El Rio (Ventura) Ojai (Ventura) Piru (Ventura) Simi Valley (Ventura) Thousand Oaks (Ventura)
Redding	1	1	Redding (Shasta)**
Riverside-San Bernardino-Ontario	3	2	Victorville (Mojave Desert) Banning (South Coast)* Crestline (South Coast)* Lake Elsinore (South Coast)* Mira Loma (South Coast)** Ontario (South Coast) Rubidoux (South Coast)** Temecula/Winchester (South Coast)* Upland (South Coast)*
Sacramento-Roseville-Arden Arcade	3	2	Auburn (Placer) Colfax (Placer)** Lincoln (Placer)* Roseville (Placer)* Tahoe City (Placer)** Del Paso (Sacramento)* Elk Grove (Sacramento)** Folsom (Sacramento) Sacramento-T St (Sacramento)* Sloughhouse (Sacramento)* Davis (Yolo-Solano)**
Santa Rosa	1	1	Sebastopol (Bay Area)
Vallejo-Fairfield	1	1	Vallejo (Bay Area)
Yuba City	1	1	Yuba City (Feather River)**

* These sites operate continuous monitors reporting under non-regulatory parameter codes 88501 or 88502.
 * These sites operate continuous monitors that are not part of the SLAMS network.
 ** The Redding PM_{2.5} FRM monitor will be replaced with an FEM monitor in Spring of 2019. This monitor will operate as a Special Purpose Monitor (SPM) for the next two years.

PM_{2.5} Sampling Frequency Requirements for Primary FRM Monitors

Sampling frequency for manual FRM PM_{2.5} monitoring can vary by site. Determination of the required sampling frequency for PM_{2.5} monitors is based upon the site level design value and a number of different factors identified in federal regulations and summarized in Table 22. Sites located in areas with more severe air quality conditions generally are required to collect measurements more frequently than other sites.

The current and required sampling frequency for PM_{2.5} FRM monitors located in districts covered by this ANP are shown in Table 23 and also in Appendix A. Exceptional events are included in the determination of the design values shown here.

Table 22: Criteria for Minimum Sampling Frequency for FRM PM_{2.5} Monitoring

1:6 may be approved by Regional Administrator	1:3	1:1
Collocated with continuous FEM/ARM monitor	Not collocated with continuous FRM/FEM/ARM monitor	Not collocated with continuous FRM/FEM/ARM monitor
AND	OR	AND
Annual DV is <90% of NAAQS and not the highest in the area	Annual DV is $\pm 10\%$ of NAAQS and highest in the area	24 hour DV is $\pm 5\%$ of NAAQS and the highest in the area
AND	OR	AND
24 hour DV is <90% of NAAQS and not the highest in the area	24 hour DV is $\pm 10\%$ of NAAQS and highest in the area	Annual DV is below annual NAAQS
AND	OR	
24 hour NAAQS has not been exceeded one or more times in each of the past three years	24 hour NAAQS has been exceeded one or more times in each of the past three years	
	OR	
	NCore Site	
	OR	
	Required regional background site	
	OR	
	Required regional transport site	

Table 23: Required PM_{2.5} Sampling Frequency for FRM monitors

Site Name	AQS Site ID	District	2018 24-hr DV	2018 Annual DV	Required Sampling Frequency	Current Sampling Frequency
Chico-East	060070008	Butte	38	10.1	1:3	1:1
Colusa ¹	060111002	Colusa	36	8.5	1:6	1:6
Calexico	060250005	Imperial	35	12.6	1:1	1:1
Brawley	060250007	Imperial	30	10.4	1:3	1:3
El Centro	060251003	Imperial	22	8.9	1:3	1:3
Ridgecrest ²	060290015	Eastern Kern	15*	4.2*	1:3	See footnote
Lakeport ¹	060333001/3002	Lake	55**	7.4**	1:6	1:6
Grass Valley ³	060570005	Northern Sierra	30	5.3	1:1	See footnote
Truckee	060571001	Northern Sierra	27*	6.5*	1:3	1:3
Roseville ¹	060610006	Placer	31	8.7	1:6	1:6
Quincy	060631006	Northern Sierra	41	10.4	1:1	1:1
Portola	060631010	Northern Sierra	46	14.7	1:3	1:3
Redding ¹	060890004	Shasta	49	9.6	1:6	1:6
Yreka ⁴	060932001	Siskiyou	59*	10.1*	1:1	See footnote
Yuba City	061010003	Feather River	30	9.2	1:3	1:1
Woodland ¹	061131003	Yolo-Solano	50	9.3	1:6	1:6

* Design values based on incomplete data.

** Design values are combined for Lakeport-Lakeport (060333001) and Lakeport-S Main (060333002).

¹ Colusa, Lakeport, Redding, Roseville, and Woodland were granted waivers to allow 1:6 sampling (Letter from G.Yoshimura, EPA to R.Ramalingam on November 26, 2018). An updated waiver request for these sites is included in Appendix C of this ANP.

² Ridgecrest relocated from W.California (06-029-0015) to Ward (06-029-0018) on March 16, 2018 and switched from an FRM to an FEM BAM monitor. The W.California site ceased operations in March 2018.

³ An FEM BAM was installed at the Grass Valley site on December 6, 2017.

⁴ The Siskiyou County APCD replaced the FRM monitor at Yreka with an FEM BAM on July 1, 2018.

Suitability for comparison to the annual PM_{2.5} standard

The CFR states that for PM_{2.5} FRM or FEM monitors used in area-wide monitoring and that meet siting criteria, the reported data are comparable to the annual PM_{2.5} standard. For a PM_{2.5} monitor to be considered area-wide, the concentration values measured by the monitor should be representative of concentrations expected over an area with dimensions of a few kilometers. The PM_{2.5} FRM and FEM monitors included in this report are sited per the definition of area-wide monitoring in the CFR and meet applicable requirements; therefore, the FRM and FEM data are suitable for comparison to the PM_{2.5} NAAQS.

Requirements for PM_{2.5} Background and Transport Sites

Within each state, federal regulations require at least one site measuring concentrations representative of regional background and at least one site representative of regional transport. The regulatory language referenced in 40 CFR 58 Appendix C 2.9 indicates that IMPROVE samplers used for regional background/regional transport requirements can be considered SLAMS.¹ Federal regulations require that monitors required to characterize regional background and transport have a minimum sampling frequency of one in every three days (1:3). The monitors sited to meet these requirements are listed below.

Table 24: Regional Background and Transport Sites for PM_{2.5}

Regional Background Sites (Monitor Type/AQS ID)	Regional Transport Sites (Monitor Type/AQS ID)
Northern: Point Reyes National Seashore (EPA/060410002) Southern: San Rafael Wilderness (EPA/060839000)	Vallejo (SLAMS/060950004)

All districts covered by this ANP meet the requirements for PM_{2.5} minimum monitoring, near-road monitoring, and continuous monitoring. CARB is working with local air districts to reassess the current sampling schedules and assist in applying for additional funding to comply with sampling frequency requirements and associated continuous collocation requirements.

¹ January 13, 2017 email communication from A.Meburst, EPA, to R.Fine/G.Sweigert/T.Najita/W.Tasat citing 40 CFR 58 Appendix C 2.9.

Section 6: Other Federal Monitoring Requirements

Chemical Speciation Network (CSN)

Federal regulations also require that states continue to conduct speciated particulate measurements at CSN sites. These measurements are intended to support development of SIPs and research activities. Some districts in California conduct additional speciated particulate measurements to fulfill specific local objectives. Table 25 lists the California sites in the National Speciation Trends Network (STN) and State speciation network.

Table 25: PM_{2.5} CSN Sites in California

Site Name	AQS ID	District	National STN Site	State Speciation Site
Anaheim-Pampas*	060590007	South Coast		x
Bakersfield-California Ave	060290014	San Joaquin Valley	x	
Calexico-Ethel St	060250005	Imperial County		x
Chico-East Ave	060070008	Butte County		x
El Cajon-Lexington	060731022	San Diego	x	
Fontana-Arrow*	060712002	South Coast		x
Fresno-Garland	060190011	San Joaquin Valley	x	
Livermore-Rincon*	060010007	Bay Area		x
Los Angeles-North Main St	060371103	South Coast	x	
Modesto-14th	060990005	San Joaquin Valley		x
Oakland-West*	060010011	Bay Area		x
Portola	060631010	Northern Sierra		x
Rubidoux	060658001	South Coast	x	
Sacramento-Del Paso Manor	060670006	Sacramento	x	
Sacramento-T Street	060670010	Sacramento		x
San Jose-Jackson	060850005	Bay Area	x	
Vallejo-Tuolumne *	060950004	Bay Area		x
Visalia-Church St	061072002	San Joaquin Valley		x

*District supplemental speciation monitor

PM Monitor Spacing

Federal regulations require that high volume monitors, defined as monitors that have a sample flow rate > 200 liters per minute, are more than 2 meters away from all other PM samplers. Further, low volume monitors, those with a sample flow rate < 200 liters per minute, are required to be more than 1 meter away from all other PM monitors.

The PM monitors in the districts covered by this ANP meet spacing requirements.

National Core multipollutant Network (NCore) Monitoring

Sites in the NCore Monitoring Network measure multiple pollutants to support a wide range of air quality management objectives. NCore sites are intended to be long-term sites that will generate datasets useful for trend analyses and model evaluation. The NCore Monitoring Network includes rural and metropolitan sites. As shown in Table 26, seven NCore sites are located in California; however, none of the sites are located in the districts covered by this ANP. More information about specific sites can be found in the ANPs submitted by districts in which the sites are located.

Table 26: NCore Sites in California

Site	AQS ID	District	Site Type
El Cajon-Lexington Elementary	060731022	San Diego	Urban
Fresno-Garland	060190011	San Joaquin Valley	Urban
Los Angeles-N Main St.	060371103	South Coast	Urban
Riverside-Rubidoux	060658001	South Coast	Urban
Sacramento-Del Paso Manor	060670006	Sacramento	Urban
San Jose-Jackson	060850005	Bay Area	Urban
White Mountain Research Station	060270002	Great Basin	Rural

Photochemical Assessment Monitoring Station (PAMS)

Ozone nonattainment areas classified as serious, severe, or extreme were required to establish PAMS site(s) which provide enhanced monitoring of ozone, NOx, VOCs, and meteorological parameters. The enhanced monitoring is intended to provide comprehensive data to evaluate the nature of ozone pollution and craft effective planning strategies to improve air quality in effected areas.

In California, the Sacramento Metropolitan AQMD, San Diego County APCD, San Joaquin Valley APCD, South Coast AQMD, and Ventura County APCD have established PAMS sites. Ventura County is the only district covered by this ANP that conducts monitoring as part of the PAMS program. In 2018, Ventura County's PAMS

monitoring included measurements of more than 50 target VOCs at the Simi Valley and El Rio sites, measurement of upper air meteorological parameters at the Simi Valley upper air site, measurement of surface meteorological parameters at its six monitoring sites, and measurement of NO₂ at its Simi Valley and El Rio sites. However, Ventura County APCD received approval for discontinuation of PAMS VOC parameters at the Simi Valley and El Rio sites on January 26, 2019. A copy of the approval letter for discontinuation is provided in Appendix D.

On October 1, 2015 U.S. EPA substantially revised the PAMS requirements in 40 CFR part 58 Appendix D. As part of the revision, U.S. EPA required state and local monitoring agencies to make PAMS measurements (including hourly averaged mixing height) at NCore sites in CBSAs with a population of 1,000,000 or more. The revisions also required state monitoring agencies with Moderate and above 8-hour ozone nonattainment areas and states in the Ozone Transport Region (OTR) to develop and implement an Enhanced Monitoring Plan (EMP) detailing enhanced ozone and ozone precursor monitoring activities to be performed to better understand area specific ozone issues. In addition, the rule specifies that the EPA Regional Administrators have the authority to approve the EMPs (and other aspects of PAMS) for their respective state.

Ventura County does not have any NCore sites and its CBSA (Oxnard-Thousand Oaks-Ventura) is under 1,000,000. However, Ventura County is nonattainment - Serious for ozone and is required to develop and implement an EMP. Ventura County APCD will work with CARB and U.S. EPA Region 9 to develop an EMP which, currently, is due by August 2020.

Special Purpose Monitors (SPM)

In 2018, no SPM monitors were operating in the area covered by this ANP.

Section 7: Federal Quality Assurance Requirements

CARB PQAO Collocation Requirements

Appendix A of 40 CFR 58 includes requirements for collocation of samplers to ensure that measurements of PM_{2.5}, PM₁₀, and Pb are of comparable quality throughout monitoring networks located in each PQAO.

PM_{2.5} Collocation Status

Federal regulations require that 15 percent of the FEM and FRM monitors in the network of primary PM_{2.5} monitors must have a collocated monitor. Collocated FRM monitors must have the same method of measurement. For each site with collocated PM_{2.5} FEM monitors, half of the collocated monitors must have the same method of measurement and half must be FRM monitors. If there are an odd number of required collocated monitors then the additional monitor must be an FRM monitor.

Table 27: Collocation Requirements for PM_{2.5} Monitoring Methods

Method Type	Method Description	# of Primary Monitors	# of Required Collocated Monitors	Sites with Collocated Monitors - Method Type (District)
118 (FRM) ¹	R&P Model 2025 with WINS	1		See footnote
143 (FRM) ²	R&P Model 2000 with VSCC	8	1	Roseville-N Sunrise – 143/143 (Placer)
145 (FRM)	R&P Model 2025 with VSCC	22	3	Bakersfield-California – 145/145 (San Joaquin Valley) Calexico-Ethel – 145/145 (Imperial) Fresno-Garland – 145/145 (San Joaquin Valley) Portola – 145/145 (Northern Sierra) Sacramento-Del Paso – 145/145 (Sacramento)
170 (FEM) ³	Met One BAM 1020 with VSCC	37	6	Folsom – 170/170 (Sacramento) Modesto – 170/143 (San Joaquin Valley) Salinas – 170/143 (Monterey Bay) Simi Valley – 170/170 (Ventura) Stockton – 170/170 (San Joaquin Valley) Victorville – 170/170 (Mojave Desert)
181 (FEM)	Thermo TEOM 1400	1	1	Keeler – 181/145 (Great Basin)
204 (FEM)	Teledyne BAM 602	4	1	Madera – 204/145 (San Joaquin Valley)
238 (FEM)	Teledyne TEOM T640X	3	1	Bishop – 238/145 (Great Basin)

¹ The 118 monitor at Ridgecrest-California (Mojave Desert) was closed on 3/16/18.

² The 143 monitor at Yreka-Foothill (Northeast Plateau) was replaced with a 170 monitor on 6/30/18

³ CARB is working with the local air districts to replace the FEM/FRM collocation site previously located at Madera.

Federal regulations require that 80 percent of collocated PM_{2.5} monitors are located at sites where the design values are within 20 percent of the federal PM_{2.5} standards. However, California is a large state in which environmental conditions can cause

significant variation in ambient PM_{2.5} concentrations across spatial and temporal scales. Thus, CARB determined that limiting the focus of collocation efforts on meeting the 80 percent metric would result in collocated monitors being tightly clustered in a limited geographic range, which would not adequately represent the range of environmental conditions in the PQAQ that could potentially affect PM_{2.5} measurements.

The current locations of collocated PM_{2.5} samplers were collaboratively identified by CARB and local districts as representative of areas of expected high concentrations as well as areas with environmental conditions that could potentially affect measurements, which effectively addresses the quality control function of the collocated monitoring requirement.

PM₁₀ Collocation Status

Federal regulations require that 15 percent of PM₁₀ sites using manual FRMs in a PQAQ have collocated monitors. Collocated monitors must use the same method of measurement as the primary FRM monitor.

Per U.S. EPA's guidance, the required number of collocation sites was determined by counting all of the PM₁₀ FRM monitors, regardless of method code.

Table 28: Collocation Requirements for PM₁₀

Number of Primary FRM Monitors*	# of Required Collocated Monitors	Sites with Collocated Monitors - Method Types (District)
27*	4	Bakersfield-California – 063/063 (San Joaquin Valley) Sacramento-Del Paso – 063/063 (Sacramento) Keeler-Cerro – 127/127 (Great Basin) Fresno-Drummond – 162/162 (San Joaquin Valley)

* This number reflects the number of monitors operating in the CARB PQAQ in 2018

Pb Collocation Status

There is one Pb monitor in the CARB PQAQ, located at the Sacramento-Del Paso Manor sites. However, Pb collocation for NCore sites is addressed by U.S. EPA at the national level. Thus, CARB is not required to collocate for lead at the NCore sites.

CARB Quality Management Branch (QMB)

The information in this section, along with the information available on CARB's Quality Assurance website, <http://www.arb.ca.gov/aqgm/qa/qa.htm>, provides an overview of CARB's QMB compliance status with the requirements of 40 CFR Part 58, Appendices A, C, and E. The compliance status overview is part of the annual network plan requirement.

QMB Background

The Quality Assurance Section (QAS) and Quality Management Section (QMS) fulfill the QMB mission to ensure ambient air quality data meet or exceed the quality and program objectives of the end users. QAS and QMS perform various quality assurance activities to verify that the data collected comply with procedures and regulations set forth by U.S. EPA and can be considered good quality data and data-for-record.

The quality assurance activities are achieved through various audits which are independent from the ambient air monitoring program responsibilities. California's large network and unique ambient air monitoring challenges require a comprehensive state-of-the-art audit program. CARB's audit program meets the federal requirements for conducting annual performance evaluations and the National Performance Audit Program. Audits are conducted by using independent National Institute of Standards and Technology (NIST) traceable standards and must adhere to federally established acceptance criteria.

QAS is responsible for conducting performance audits of criteria and non-criteria gaseous analyzers, particulate matter samplers, meteorological equipment, and laboratory analyses utilized for generating ambient pollutant level measurements. QAS also performs site reviews as well as reports quality assessment and quality control results. QMS is responsible for ensuring that CARB meets its federally mandated PQAO responsibilities. QMS performs technical system audits (TSA) and provides quality assurance oversight of the PQAO districts.

CARB Quality Assurance Activities

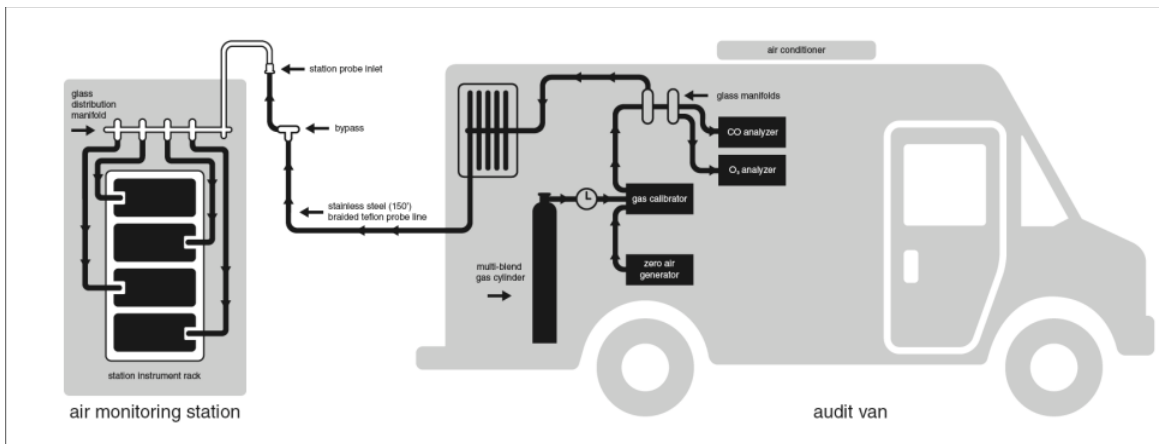
Monitoring Station Audits

Annually, QAS conducts through-the-probe (TTP) audits for all continuous gaseous analyzers in the network. TTP audits of the gaseous analyzers, which monitor for carbon monoxide, nitrogen dioxide, hydrogen sulfide, sulfur dioxide, and ozone, are conducted in accordance with U.S. EPA requirements (Title 40, CFR, Part 58, Appendix A). These audits verify the accuracy of the gaseous analyzers and ensure the integrity of the entire sampling system. For most TTP audits, an audit van is transported by QAS to the ambient air monitoring station. Audit vans house the necessary instrumentation and equipment to allow the audit to be conducted at the same condition as the station instruments. TTP audits, depicted in Figure 4, are conducted by introducing NIST

traceable gases from the van into the station sampling probe inlet at various concentrations. QAS compares the results obtained from the station analyzer to the known values generated in the van.

TTP audit methodology can identify deficiencies caused by poor analyzer response, pollutant scavenging contaminants, and sampling system leaks. Deficiencies like these can cause the gaseous analyzers to fail an audit and possibly affect the quality of the ambient air data.

Figure 4: Through-the-Probe Audit



Biannually, QAS determines the accuracy of each particulate matter sampler in the network by comparison of the instrument's flow rate to either a certified orifice or a mass flow meter. These devices are certified against a NIST traceable flow device or calibrator. The audit device is connected in-line with the sampler's flow path and the flow rate is measured while the sampler is operating under normal sampling conditions. The true flow is calculated from the audit device's calibration curve. The sampler's flow is then compared to the true flow and a percent difference is determined for verifying compliance.

QAS also conducts annual audits of meteorological sensors using NIST traceable equipment. Accurate meteorological data are important for characterizing meteorological processes such as transport and diffusion, and to make air quality forecasts and burn-day decisions.

An integral part of a performance audit is conducting a siting evaluation. Stations that meet siting criteria at the time of initial setup may no longer conform due to updated regulations or changes in surrounding conditions and land use. Physical measurements and observations are noted on the site survey or accompanying documentation to determine compliance with 40 CFR Part 58, Appendix E requirements. Many of the siting issues result from the growth of vegetation such as trees infringing on the minimum distance required from probe inlets.

Laboratory Performance and System Audits

Laboratory mass analysis performance audits are conducted annually by QAS. These audits utilize NIST certified weights, hygrometers, and temperature sensors to verify the accuracy of the laboratory balance, relative humidity, and temperature sensors.

Technical System Audit

A Technical System Audit (TSA) is an on-site inspection and review of a monitoring organization's entire ambient air monitoring program. CARB conducts TSAs of monitoring organizations within its PQAQO in accordance with U.S. EPA Quality Assurance Guidance Document: Conducting Technical Systems Audits of Ambient Air Monitoring Programs, EPA-454/B-17-004, November 2017. Each local agency within a PQAQO must be audited on a six year schedule. The entire measurement system is reviewed which includes sample collection, sample analysis, and data processing. TSAs include a review of staff records, procedures, instrumentation, facilities, and documentation to assure compliance with all applicable requirements. Following evaluation of available information, a report is issued which includes a summary of the audit process, and a summary of findings and recommendations to correct any issues identified.

Quality Assessment and Quality Control

QAS ensures the quality of the data collected by the air monitoring stations operating in California through the analysis of precision data submitted to U.S. EPA's AQS database. Precision checks for gaseous-continuous samplers are required once every two weeks. These precision checks are conducted nightly at CARB and some district operated sites, and weekly or bi-weekly at other district sites. Precision checks for non-continuous, collocated particulate matter samplers are to be performed at least every 12 days. QAS staff analyzes the precision data in accordance with 40 CFR 58, Appendix A.

Air monitoring staff perform a one-point flow rate verification at least once every month on the filter-based and automated PM analyzers. Air monitoring staffs review these data and take corrective action when the results exceed U.S. EPA's requirements. These flow rate verifications are used to assess bias of the automated instruments in accordance with 40 CFR Part 58, Appendix A, 3.2.3. These bias estimates are further verified by the semi-annual flow rate audits that are conducted five to seven months apart in each calendar year. In the course of auditing the PM_{2.5} FRM and continuous samplers, the date of the last six months of flow rate and leak checks performed by the air monitoring staff are recorded.

Identifying and Correcting Deficiencies

During a performance audit, if a parameter fails to meet critical criteria (QA Handbook Volume II, Appendix D), an Air Quality Data Action (AQDA) request is issued to the

facility operator. All AQDAs must be investigated by the operator and resolved to bring the parameter in question into compliance. The station operator completes the AQDA by documenting the resolution, specifying the time period during which data were potentially affected, and recommending whether the data are to be released, corrected, or invalidated. QMB reviews the completed AQDA and discusses any concerns with the operator. A finalized copy of the AQDA is forwarded to the operator and CARB's Air Quality Analysis Section. Other issues identified as systematic or operational criteria that may impact or potentially impact data quality are documented through the issuance of a Corrective Action Notification (CAN).

Audit Report Summary

Information about each air monitoring station audited by QMB is available at http://www.arb.ca.gov/gaweb/sitelist_create.php. This web page provides the map location, latitude and longitude coordinates, site photos, the pollutants monitored, along with a detailed site survey of the instrumentation and physical parameters for each site.

The 2018 calendar year audit dates for both the gaseous analyzers and PM monitors and residence time for each gas analyzer operating at the monitoring sites covered in this report are provided in the detailed site tables in Appendix A. Audit results are directly submitted to AQS quarterly per Appendix A of 40 CFR Part 58.

In addition, as required by 40 CFR Part 58.15, CARB submits a data certification letter along with the required AQS reports (AMP450NC and AMP600) to U.S.EPA annually. The most recent certification letter was sent to the U.S. EPA on June 15, 2018.

Section 8: Proposed and Recently Implemented Monitoring Site Changes

CARB utilizes the annual network plan process to document and provide the public opportunities to comment on any proposed changes to the monitoring network. Any received comments are formally addressed via letters and are documented in the network plan. The network plan is submitted to the U.S. EPA annually for formal approval of all network modifications.

This section lists the proposed and recently implemented monitoring site changes that CARB is currently aware of in the areas covered by this ANP.

District	Site (AQS ID)	Comment
Butte County APCD	Chico (060070008)	The District is proceeding in its plan to switch the PM _{2.5} FRM to PM _{2.5} FEM; this change does not require formal U.S.EPA approval.
Eastern Kern APCD	Canebrake (060290017)	District is planning on replacing the PM ₁₀ FRM monitor with an E-BAM Plus monitor.
	Ridgecrest - California Ave (060290015) - Ward Ave (060290018)	The relocation of the California Ave site to the Ward Ave site was approved by U.S. EPA on June 27, 2018; PM ₁₀ and PM _{2.5} FRM monitors were shutdown on 3/15/2018 and replaced with FEM BAMs. A new data management system and data logger will be purchased and installed at the Ward Ave site. The data management system will communicate with the E-BAM Plus monitor in the Canebrake site to make the information available remotely.
	Mojave (060290011)	CARB was informed by District that an approved runway expansion at the Mojave Air and Space Port will require relocation of the Mojave site. This expansion is scheduled to occur in June of 2020. CARB has entered into discussions with the District to relocate the site. Three candidate sites have been identified on the Air and Space Port grounds and presented to District. A final proposed site determination is expected to be completed by June 2019 allowing for 12 months to execute a lease and physical relocation of the existing shelter.
Imperial County APCD	Calexico-Ethel (06250005)	The decision to relocate the Calexico site was undertaken in 2013 due to siting concerns that could not be addressed by the property owner. The cost of improvements delayed the relocation. Summer 2018 development of the property corner presently occupied by the station has motivated the property owner to fast track the relocation of the air monitoring site. As of March 2019, there is a lease in place for the new location and CARB is awaiting the school district to finalize the execution. Upon receipt of the lease, a new shelter, already constructed, will be dropped in place and outfitted to assume sampling of all parameters presently at the 1029 Belcher street site. U.S. EPA Region 9 staff has visited the new location and provided comments to optimize the location of the new shelter. This relocation should occur by the end of calendar year 2019.
Mariposa County APCD	Jerseydale (060430006)	The site missed start of 2019 seasonal ozone season due to Forest Service logging operations near the site. The Site became operational May 13, 2019

District	Site (AQS ID)	Comment
Northern Sierra AQMD	Loyalton (not yet available)	The non-FEM BAM monitor was installed in early December of 2017. This is a SPM monitor. There are data issues with this site and site has not produced any data yet. Because of these issues, it is not clear if this will be a short-term or long-term site.
	White Cloud Mountain (060570007)	Monitoring site is no longer available due to planned helitack expansion by site owner. CARB is proposing an alternate site on the same property and had received U.S. EPA approval. However, power issues continue to be a problem and alternate solutions will need to be investigated.
Placer County APCD	Lincoln-Moore Rd. (060612003)	District has relocated the Lincoln site to a new location and completed the site construction in October 2018. The site operates an Ozone monitor and a PM _{2.5} non-FEM Bam and begins to report monitoring data from November 1, 2018. CARB has coordinated with EPA during the whole process of site closure and finding a new location, providing updates every month during the EPA/ARB calls. District requests the formal approval for the new Lincoln 2885 Moore Road site with Site ID: 060612003.
Shasta County AQMD	Lake Blvd. (060890009)	Districts replaced the Teledyne API 400A with a Teledyne T265 on October 12, 2018.
	Redding-Health Dept. (060890004)	District is planning on replacing the R&P 2000 PM _{2.5} monitor with a Met One BAM 1022.
Siskiyou	Yreka (060932001)	PM _{2.5} FRM monitor shutdown on 6/30/2018; FEM monitor now operated as primary monitor. District is moving ahead with the plan to deploy a BAM1022 in Mt Shasta City in 2019 as a PM _{2.5} SPM with a SCC impactor.
Ventura County APCD	Simi Valley (061112002)	District shut down PAMS VOC parameters at the Simi Valley and El Rio sites; Districts had received approval for discontinuation on January 26, 2019.
	El Rio (061113001)	

CARB operates multiple sites in districts that are not covered by this ANP. Below are proposed and recently implemented changes to the CARB operated sites in Santa Barbara County and San Joaquin Valley APCD. For more detailed information of changes in these districts, please see the individual district plans.

District	Site (AQS ID)	Comment
Santa Barbara County	Santa Barbara (060830011)	District will take over ownership and operation of the Santa Barbara and Santa Maria SLAM sites from CARB by no later than November 30, 2019.
	Santa Maria (060831008)	
San Joaquin Valley APCD	Fresno - Garland (060190011)	<p>CARB is collecting daily PM_{2.5} FRM samples and collocated 1:12 FRM samples, and has collocated course/fine BAMs. CARB has discussed with U.S. EPA about the proposal to reduce the daily FRM to 1:3 sampling, keep the 1:12 collocated FRM, and remove the collocated course/fine BAMs.</p> <p>40 CFR, Part 58, Appendix D (Section 3b1) states that “although the measurement of NOy is required in support of a number of monitoring objectives, available commercial instruments may indicate little difference in their measurement of NOy compared to the conventional measurement of NOx, particularly in areas with relatively fresh sources of nitrogen emissions. Therefore, in areas with negligible expected difference between NOy and NOx measured concentrations, the Administrator may allow for waivers that permit NOx monitoring to be substituted for the required NOy monitoring at applicable NCore sites.” CFR language does not specify or define “negligible difference” nor how NOy data is utilized “in support of a number of monitoring objectives”. In addition, operation and calibration of the NOy monitor is extremely challenging due to the monitor’s external converter (the 30 feet elevation requirement and long converter line) which results in logistic and safety issues. CARB requests U.S. EPA to evaluate NCore NOy monitoring; further define “negligible difference”, NOy monitoring usefulness of the data and the potential to approve waivers to remove NOy monitors at NCore sites as specified in the CFRs.</p>

Section 9: Network Information Resources

While this report includes a great deal of information about the ambient air quality monitoring network, much more information, including summaries of the pollutant data from the monitors around the State is readily available on the web. This section lists a number of additional sources of such information. Also listed is contact information for the agencies responsible for the monitoring covered in this report

CARB's Monitoring and Laboratory Division (MLD) maintains web pages with information about all the existing monitoring sites that routinely monitor and submit air quality data in California. The pages also include detailed local maps showing the location of the sites. This information can be found at <http://www.arb.ca.gov/aaqm/mldaqsb/amn.htm>. A more general MLD web page that provides links to other aspects of ambient monitoring is located at <http://www.arb.ca.gov/aaqm/aaqm.htm>.

Summaries of the official air quality data from sites around the State can be found at <http://www.arb.ca.gov/adam/welcome.html>. Summaries of the most recent preliminary data can be viewed at: <http://www.arb.ca.gov/aqmis2/aqmis2.php>. These last two sources of information are maintained by CARB staff of the Air Quality Planning and Science Division, as is the following more general web page that lists links to other aspects of the ambient air quality data program: <http://www.arb.ca.gov/html/ds.htm>.

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Yolo-Solano Air Quality Management District, Davis, CA
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Appendix A

Detailed Site Reports

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Amador County APCD

Local Site Name	Jackson-Clinton Road				
AQS ID	06-005-0002				
GPS Coordinates	38.34261, -120.76443				
Street Address	201 Clinton Rd, Jackson, 95642				
County	Amador				
Distance to roadways (meters)	270 to CA-49				
Traffic Count (AADT,year)	7,300 (2,500)				
Ground Cover	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other)	None				
Pollutant, POC	Ozone, 1				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	44201				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Population Exposure				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Teledyne API 400				
Method code	87				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	ARB				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	ARB				
Spatial scale	Neighborhood				
Monitoring start date	5/1/1992				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	5.9				
Distance from supporting structure (meters)	2.6				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10 meters				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	15.5				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	Daily				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	8/7/2018				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A				

Antelope Valley AQMD

Local Site Name	Lancaster-Division Street				
AQS ID	06-037-9033				
GPS Coordinates	34.66959, -118.13068				
Street Address	43301 Division St, Lancaster, 93535				
County	Los Angeles				
Distance to roadways (meters)	118 to Sierra Hwy; 47 to Division Street				
Traffic Count (AADT, year)	Not available				
Ground Cover	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other)	Los Angeles-Long Beach-Anaheim Metropolitan Statistical Area				
Pollutant, POC	CO, 1	NO2, 1	Ozone, 1	PM10, 2	PM2.5, 1
Primary, QA-Audit, Supplementary, or N/A	N/A	N/A	N/A	Primary	Primary
Parameter Code	42101	42602	44201	81102	88101
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS, Public Info.	NAAQS
Site type(s)	Population Exposure	Population Exposure	Population Exposure	Population Exposure	Population Exposure
Monitor type(s)	SLAMS	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation(s)	N/A	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Teledyne API 300	Teledyne API 200	Teledyne API 400	Met One BAM 1020	Met One BAM 1020
Method code	93	99	87	122	170
FRM/FEM/ARM/Other	FRM	FRM	FEM	FEM	FEM
Collecting Agency	Antelope Valley	Antelope Valley	Antelope Valley	Antelope Valley	Antelope Valley
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A	Antelope Valley
Reporting Agency	Antelope Valley	Antelope Valley	Antelope Valley	Antelope Valley	Antelope Valley
Spatial scale	Middle	Middle	Middle	Neighborhood	Neighborhood
Monitoring start date	11/01/2001	11/01/2001	11/01/2001	11/1/2001	11/01/2001
Current sampling frequency	Continuous	Continuous	Continuous	Continuous	Continuous
Required sampling frequency including exceptional events	N/A	N/A	N/A	N/A	N/A
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec
Probe height (meters)	6.4	6.4	6.4	6.4	6.5
Distance from supporting structure (meters)	1.9	1.9	1.9	>2	2
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	No obstructions
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	No obstructions
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A	N/A	N/A
Distance to nearest tree drip line (meters)	>10	>10	>10	>10	>10
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A	N/A
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360	360	360
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	N/A	N/A
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	17.2	17.6	16.4	N/A	N/A
Will there be changes within the next 18 months?	No	No	No	No	Yes
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A	N/A	N/A	Yes
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	Monthly	Monthly
Frequency of one-point QC check for gaseous instruments	Every 2 weeks	Every 2 weeks	Every 2 weeks	N/A	N/A
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	1/30/2018	1/30/2018	1/30/2018	N/A	N/A
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	N/A	N/A	1/30/2018 8/07/2018	1/30/2018 8/07/2018

Butte County AQMD

Local Site Name	Chico - East Avenue					
AQS ID	06-007-0008					
GPS Coordinates	39.76168, -121.84047					
Street Address	984 East Ave, Ste 4, Chico, 95926					
County	Butte					
Distance to roadways (meters)	920 to CA-99					
Traffic Count (AADT/year)	45,200 (2015)					
Ground Cover	Asphalt					
Representative statistical area name (i.e. MSA, CBSA, other):	Chico Metropolitan Statistical Area					
Pollutant, POC	CO, 3	NO2, 1	Ozone, 1	PM10, 3	PM2.5, 1	PM2.5, 3
Primary, QA-Audit, Supplementary, or N/A	N/A	N/A	N/A	Primary	Primary	Supplementary
Parameter Code	42101	42602	44201	81102	88101	88502
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS	NAAQS	Public Information
Site type(s)	Population Exposure	Population Exposure	Population Exposure	Population Exposure	Highest Concentration	Population Exposure
Monitor type(s)	SLAMS	SLAMS	SLAMS	SLAMS	SLAMS	Other
Network affiliation(s)	N/A	N/A	N/A	N/A	CSN supplemental	N/A
Instrument manufacturer and model	Teledyne API 300	Teledyne API 200	Teledyne API 400	Met One BAM 1020	Thermo 2025i	Met One BAM 1020
Method code	593	99	87	122	145	731
FRM/FEM/ARM/Other	FRM	FRM	FEM	FEM	FRM	Other
Collecting Agency	ARB	ARB	ARB	ARB	ARB	ARB
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A	ARB	N/A
Reporting Agency	ARB	ARB	ARB	ARB	ARB	ARB
Spatial scale	Neighborhood	Neighborhood	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date	06/01/2012	06/08/2012	06/01/2012	5/27/2012	4/27/2012	6/1/2012
Current sampling frequency	Continuous	Continuous	Continuous	Continuous	1:1	Continuous
Required sampling frequency including exceptional events	N/A	N/A	N/A	N/A	1:3	N/A
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec
Probe height (meters)	6.3	6.3	6.3	6.5	6.2	6.5
Distance from supporting structure (meters)	2.0	2.0	2.0	2.5	>2	2.5
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	No obstructions	No obstructions
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	No obstructions	No obstructions
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A	N/A	N/A	N/A
Distance to nearest tree drip line (meters)	>10	>10	>10	>10	>10	>10
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A	N/A	N/A
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A	N/A	N/A	2	2
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360	360	360	360
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	N/A	N/A	N/A
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	17.2	18	18	N/A	N/A	N/A
Will there be changes within the next 18 months?	No	No	No	No	No	No
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A	N/A	N/A	Yes	No
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A	N/A	N/A	Monthly	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	Monthly	N/A	Monthly
Frequency of one-point QC check for gaseous instruments	Daily	Daily	Daily	N/A	N/A	N/A
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	9/12/2018	9/12/2018	9/12/2018	N/A	N/A	N/A
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	N/A	N/A	3/12/2018 9/12/2018	3/12/2018 9/12/2018	3/12/2018 9/12/2018

Local Site Name	Gridley				
AQS ID	06-007-4001				
GPS Coordinates	39.32756, -121.66881				
Street Address	608 Cowee Ave, Gridley, 95948				
County	Butte				
Distance to roadways (meters)	1,053 to CA-99				
Traffic Count (AADT,year)	19,200 (2015)				
Ground Cover	Gravel				
Representative statistical area name (i.e. MSA, CBSA, other)	Chico Metropolitan Statistical Area				
Pollutant, POC	PM2.5, 3				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	88502				
Basic monitoring objective(s)	Public Information				
Site type(s)	Population Exposure				
Monitor type(s)	Other				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Met One BAM 1020				
Method code	731				
FRM/FEM/ARM/Other	Other				
Collecting Agency	California ARB				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	California ARB				
Spatial scale	Neighborhood				
Monitoring start date	1/1/2001				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	4.8				
Distance from supporting structure (meters)	>2				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10 meters				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	No				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	Monthly				
Frequency of one-point QC check for gaseous instruments	N/A				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	11/17/2018 11/28/2018				

Local Site Name	Paradise - Airport				
AQS ID	06-007-0007				
GPS Coordinates	39.70845, -121.61731				
Street Address	4405 Airport Rd, Paradise, 95969				
County	Butte				
Distance to roadways (meters)	852 to CA-191				
Traffic Count (AADT,year)	6,100 (2015)				
Ground Cover	Gravel				
Representative statistical area name (i.e. MSA, CBSA, other)	Chico Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	44201				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Highest Concentration				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Teledyne API 400				
Method code	87				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	California ARB				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	California ARB				
Spatial scale	Regional				
Monitoring start date	05/01/2000				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	4.6				
Distance from supporting structure (meters)	1.6				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10 meters				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	9.1				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	Daily				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	9/11/2018				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A				

Local Site Name	Paradise - Theater				
AQS ID	06-007-2002				
GPS Coordinates	39.77919, -121.59135				
Street Address	6701 Clark Road, Paradise CA 95966				
County	Butte				
Distance to roadways (meters)	126 to CA-191				
Traffic Count (AADT/year)	9,300 (2015)				
Ground Cover	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other)	Chico Metropolitan Statistical Area				
Pollutant, POC	PM2.5, 3				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	88502				
Basic monitoring objective(s)	Public Information				
Site type(s)	General Background				
Monitor type(s)	OTHER				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Met One BAM 1022				
Method code	171				
FRM/FEM/ARM/Other	Other				
Collecting Agency	ARB				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	ARB				
Spatial scale	Neighborhood				
Monitoring start date	9/9/2010				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	10.2				
Distance from supporting structure (meters)	2.2				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10 meters				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	No				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	Semi-Monthly				
Frequency of one-point QC check for gaseous instruments	N/A				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	3/12/2018 9/11/2018				

Calaveras County APCD

Local Site Name	San Andreas-Gold Strike Road				
AQS ID	06-009-0001				
GPS Coordinates	38.20185, -120.68028				
Street Address	501 Gold Strike Rd, San Andreas, 95249				
County	Calaveras				
Distance to roadways (meters)	620 to CA-49				
Traffic Count (AADT/year)	10,900 (2015)				
Ground Cover	Dirt				
Representative statistical area name (i.e. MSA, CBSA, other)	None				
Pollutant, POC	Ozone, 1	PM10, 3	PM2.5, 3		
Primary, QA-Audit, Supplementary, or N/A	Primary	Primary	Primary		
Parameter Code	44201	81102	88101		
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS, Public Information		
Site type(s)	Highest Concentration	General Background	General Background		
Monitor type(s)	SLAMS	SLAMS	SLAMS		
Network affiliation(s)	N/A	N/A	N/A		
Instrument manufacturer and model	Teledyne API 400	Met One BAM 1020	Met One BAM 1020		
Method code	87	122	170		
FRM/FEM/ARM/Other	FEM	FEM	FEM		
Collecting Agency	ARB	ARB	ARB		
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A	N/A		
Reporting Agency	ARB	ARB	ARB		
Spatial scale	Neighborhood	Neighborhood	Neighborhood		
Monitoring start date	05/01/1994	10/6/2014	06/15/2010		
Current sampling frequency	Continuous	Continuous	Continuous		
Required sampling frequency including exceptional events	N/A	N/A	N/A		
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec		
Probe height (meters)	4.4	5	4.8		
Distance from supporting structure (meters)	1.2	2.1	2		
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A		
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A		
Distance to nearest tree drip line (meters)	>10 meters	>10 meters	>10 meters		
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A		
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A	N/A		
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360		
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A	N/A		
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	6.8	N/A	N/A		
Will there be changes within the next 18 months?	No	No	No		
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A	Yes		
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A	N/A		
Frequency of flow rate verification for automated PM analyzers	N/A	Monthly	Monthly		
Frequency of one-point QC check for gaseous instruments	Daily	N/A	N/A		
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	8/7/2018	N/A	N/A		
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	1/31/2018 8/07/2018	1/31/2018 8/07/2018		

Colusa County APCD

Local Site Name	Colusa-Sunrise Blvd				
AQS ID	06-011-1002				
GPS Coordinates	39.18919, -121.99887				
Street Address	100 Sunrise Blvd, Colusa, 95932				
County	Colusa				
Distance to roadways (meters)	642 to CA-20				
Traffic Count (AADT/year)	9,500 (2015)				
Ground Cover	Grass				
Representative statistical area name (i.e. MSA, CBSA, other)	None				
Pollutant, POC	Ozone, 1	PM10, 6	PM2.5, 1	PM2.5, 3	
Primary, QA-Audit, Supplementary, or N/A	Primary	Primary	Primary	Supplementary	
Parameter Code	44201	81102	88101	88502	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	Public Information	
Site type(s)	General Background	Population Exposure	Population Exposure	Population Exposure	
Monitor type(s)	SLAMS	SLAMS	SLAMS	Other	
Network affiliation(s)	N/A	N/A	N/A	N/A	
Instrument manufacturer and model	Teledyne API 400	Met One BAM 1020	Thermo 2000i	Met One BAM 1022	
Method code	87	122	143	171	
FRM/FEM/ARM/Other	FEM	FEM	FRM	Other	
Collecting Agency	ARB	ARB	ARB	ARB	
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A	ARB	N/A	
Reporting Agency	ARB	ARB	ARB	ARB	
Spatial scale	Regional	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date	07/01/1996	2/1/2016	12/16/1998	10/12/2004	
Current sampling frequency	Continuous	Continuous	1:6	Continuous	
Required sampling frequency including exceptional events	N/A	N/A	1:3	N/A	
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	
Probe height (meters)	5.3	5.9	9.5	9.8	
Distance from supporting structure (meters)	2	2.2	2.5	2.8	
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A	N/A	
Distance to nearest tree drip line (meters)	>10 meters	>10 meters	>10 meters	>10 meters	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A	
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A	N/A	N/A	
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360	360	
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A	N/A	N/A	
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	10.7	N/A	N/A	N/A	
Will there be changes within the next 18 months?	No	No	No	No	
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A	Yes	No	
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A	Monthly	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	Monthly	N/A	Monthly	
Frequency of one-point QC check for gaseous instruments	Daily	N/A	N/A	N/A	
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	5/30/2018	N/A	N/A	N/A	
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	5/30/2018 11/08/2018	5/30/2018 11/08/2018	5/30/2018 11/08/2018	

Eastern Kern APCD

Local Site Name	Canebrake				
AQS ID	06-029-0017				
GPS Coordinates	35.72775, -118.13770				
Street Address	3147 Highway 178, Canebrake, 93255				
County	Kern				
Distance to roadways (meters)	88 to CA-178				
Traffic Count (AADT/year)	2,250 (2015)				
Ground Cover	Sand				
Representative statistical area name (i.e. MSA, CBSA, other)	Bakersfield Metropolitan Statistical Area				
Pollutant, POC	PM10, 1				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	81102				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Population Exposure; General Background				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Tisch 6070				
Method code	141				
FRM/FEM/ARM/Other	FRM				
Collecting Agency	Eastern Kern APCD				
Analytical Lab (i.e. weigh lab, toxics lab, other)	ARB				
Reporting Agency	ARB				
Spatial scale	Regional				
Monitoring start date	01/01/2009				
Current sampling frequency	1:6				
Required sampling frequency including exceptional events	1:6				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	2.1				
Distance from supporting structure (meters)	>2				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A				
Will there be changes within the next 18 months?	Yes				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	Monthly				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	N/A				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	1/31/2018 7/18/2018				

Local Site Name	Mojave				
AQS ID	06-029-0011				
GPS Coordinates	35.05045, -118.14778				
Street Address	923 Poole Street, Mojave, 93501				
County	Kern				
Distance to roadways (meters)	885 to CA-58				
Traffic Count (AADT, year)	17,000 (2015)				
Ground Cover	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other)	Bakersfield Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1	PM10, 2	PM2.5, 3		
Primary, QA-Audit, Supplementary, or N/A	N/A	Primary	Primary		
Parameter Code	44201	81102	88101		
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS		
Site type(s)	Highest Concentration	Population Exposure	Highest Concentration		
Monitor type(s)	SLAMS	SLAMS	SLAMS		
Network affiliation(s)	N/A	N/A	N/A		
Instrument manufacturer and model	Teledyne API 400	Met One BAM 1020	Met One BAM 1020		
Method code	87	122	170		
FRM/FEM/ARM/Other	FEM	FEM	FEM		
Collecting Agency	ARB	ARB	ARB		
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A	N/A		
Reporting Agency	ARB	ARB	ARB		
Spatial scale	Regional	Neighborhood	Neighborhood		
Monitoring start date	8/1/1993	6/4/2013	4/1/2011		
Current sampling frequency	Continuous	Continuous	Continuous		
Required sampling frequency including exceptional events	N/A	N/A	N/A		
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec		
Probe height (meters)	4.1	4.4	4.5		
Distance from supporting structure (meters)	1.5	1.8	1.9		
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A		
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A		
Distance to nearest tree drip line (meters)	>10	>10	>10		
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A		
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A	N/A		
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360		
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A	N/A		
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	7.8	N/A	N/A		
Will there be changes within the next 18 months?	yes	yes	yes		
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A	Yes		
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A	N/A		
Frequency of flow rate verification for automated PM analyzers	N/A	Semi-Monthly	Semi-Monthly		
Frequency of one-point QC check for gaseous instruments	Daily	N/A	N/A		
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	2/1/2018	N/A	N/A		
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	2/01/2018 7/18/2018	2/01/2018 7/18/2018		

Local Site Name	Ridgecrest - California Ave				
AQS ID	06-029-0015				
GPS Coordinates	35.62109, -117.67296				
Street Address	100 W California Av, Ridgecrest, 93555				
County	Kern				
Distance to roadways (meters)	320 to CA-178				
Traffic Count (AADT, year)	11,100 (2015)				
Ground Cover	Grass				
Representative statistical area name (i.e. MSA, CBSA, other)	Bakersfield Metropolitan Statistical Area				
Pollutant, POC	PM10, 1	PM2.5, 1			
Primary, QA-Audit, Supplementary, or N/A	Primary	Primary			
Parameter Code	81102	88101			
Basic monitoring objective(s)	NAAQS	NAAQS			
Site type(s)	Highest Concentration	Population Exposure			
Monitor type(s)	SLAMS	SLAMS			
Network affiliation(s)	N/A	N/A			
Instrument manufacturer and model	GMW 1200	R & P CO 2025			
Method code	63	118			
FRM/FEM/ARM/Other	FRM	FRM			
Collecting Agency	Eastern Kern	Eastern Kern			
Analytical Lab (i.e. weigh lab, toxics lab, other)	ARB	San Diego County			
Reporting Agency	ARB	San Diego County			
Spatial scale	Neighborhood	Neighborhood			
Monitoring start date	01/01/2000	06/01/1999			
Current sampling frequency	1:6	1:6			
Required sampling frequency including exceptional events	1:6	1:3			
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec			
Probe height (meters)	2.4	3.0			
Distance from supporting structure (meters)	>2	>2			
Distance from obstructions on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions on roof (meters)	N/A	N/A			
Distance from obstructions not on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions not on roof (meters)	N/A	N/A			
Distance to nearest tree drip line (meters)	12.2	12.2			
Distance to furnace or incinerator flue (meters)	N/A	None			
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	None			
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360			
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A			
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A	N/A			
Will there be changes within the next 18 months?	closed 3/15/2018	closed 3/15/2018			
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	Yes			
Frequency of flow rate verification for manual PM samplers, including Pb samplers	Monthly	Monthly			
Frequency of flow rate verification for automated PM analyzers	N/A	N/A			
Frequency of one-point QC check for gaseous instruments	N/A	N/A			
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A	N/A			
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	1/31/2018 CLOSED	1/31/2018 CLOSED			

Local Site Name	Ridgecrest - Ward Ave				
AQS ID	06-029-0018				
GPS Coordinates	35.64296, -117.71414				
Street Address	2051 Ward Av , Ridgecrest, 93555				
County	Kern				
Distance to roadways (meters)	N. Primavera Street (32m), Sydnor Ave (235m), West Ward Ave. (162m), Jacks Ranch Road (800m)				
Traffic Count	Primavera 5 (staff estimate), Sydnor 15 (staff estimate), Ward 15 (staff estimate), Jacks Ranch Rd 2,087 (July 25, 2018)				
Ground Cover	Sand				
Representative statistical area name (i.e. MSA, CBSA, other)	Bakersfield Metropolitan Statistical Area				
Pollutant, POC	PM10, 1	PM2.5, 1			
Primary, QA-Audit, Supplementary, or N/A	Primary	Primary			
Parameter Code	85101	88101			
Basic monitoring objective(s)	NAAQS	NAAQS			
Site type(s)	Highest Concentration	Population Exposure			
Monitor type(s)	SLAMS	SLAMS			
Network affiliation(s)	N/A	N/A			
Instrument manufacturer and model	MET ONE BAM 1020	MET ONE BAM 1020			
Method code	122	170			
FRM/FEM/ARM/Other	FEM	FEM			
Collecting Agency	Eastern Kern APCD	Eastern Kern APCD			
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A			
Reporting Agency	Eastern Kern APCD	Eastern Kern APCD			
Spatial scale	Neighborhood	Neighborhood			
Monitoring start date	11/1/2017	11/1/2017			
Current sampling frequency	continuous	continuous			
Required sampling frequency including exceptional events	N/A	N/A			
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec			
Probe height (meters)	5.5	5.5			
Distance from supporting structure (meters)	2.0	2.0			
Distance from obstructions on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions on roof (meters)	N/A	N/A			
Distance from obstructions not on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions not on roof (meters)	N/A	N/A			
Distance to nearest tree drip line (meters)	100	100			
Distance to furnace or incinerator flue (meters)	N/A	N/A			
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A			
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360			
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A			
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A	N/A			
Will there be changes within the next 18 months?	No	No			
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	Yes			
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A			
Frequency of flow rate verification for automated PM analyzers	2 weeks	2 weeks			
Frequency of one-point QC check for gaseous instruments	N/A	N/A			
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A	N/A			
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	7/18/2018	7/18/2018			

El Dorado County AQMD

Local Site Name	Cool (seasonal)				
AQS ID	06-017-0020				
GPS Coordinates	38.89094, -121.00337				
Street Address	1400 American River Trail, Cool, 95614				
County	El Dorado				
Distance to roadways (meters)	183 to CA-193				
Traffic Count (AADT/year)	6,300 (2015)				
Ground Cover	Dirt				
Representative statistical area name (i.e. MSA, CBSA, other)	Sacramento-Roseville-Arden-Arcade Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	44201				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Highest Concentration				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Teledyne API 400				
Method code	87				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	ARB				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	ARB				
Spatial scale	Regional				
Monitoring start date	06/01/1996				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	Apr-Oct				
Probe height (meters)	11.9				
Distance from supporting structure (meters)	N/A				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10 meters				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	16.1				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	Daily				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	8/15/2018				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A				

Local Site Name	Echo Summit (seasonal)				
AQS ID	06-017-0012				
GPS Coordinates	38.81161, -120.03308				
Street Address	21200 US Hwy 50, Little Norway, 95721				
County	El Dorado				
Distance to roadways (meters)	207 to US-50				
Traffic Count (AADT, year)	10,000 (2015)				
Ground Cover	Paved				
Representative statistical area name (i.e. MSA, CBSA, other)	Sacramento-Roseville-Arden-Arcade Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	44201				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Regional Transport				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Teledyne API 400				
Method code	87				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	ARB				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	ARB				
Spatial scale	Regional				
Monitoring start date	01/01/2000				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	Apr-Oct				
Probe height (meters)	3.9				
Distance from supporting structure (meters)	1.4				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10 meters				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	None				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	13.9				
Will there be changes within the next 18 months?	Back online for 2016 season				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	Daily				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	not audited in 2017				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	6/13/2018				

Local Site Name	Placerville				
AQS ID	06-017-0010				
GPS Coordinates	38.72528, -120.82192				
Street Address	3111 Gold Nugget Way, Placerville, 95667				
County	El Dorado				
Distance to roadways (meters)	721 to US-50				
Traffic Count (AADT, year)	49,500				
Ground Cover	Dirt				
Representative statistical area name (i.e. MSA, CBSA, other)	Sacramento-Roseville-Arden-Arcade Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	44201				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Highest Concentration				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Teledyne API 400				
Method code	87				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	ARB				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	ARB				
Spatial scale	Regional				
Monitoring start date	2/1/1992				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	4.1				
Distance from supporting structure (meters)	1.1				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10 meters				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	None				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	5.2				
Will there be changes within the next 18 months?	Yes				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	Daily				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	5/14/2018				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A				

Local Site Name	South Lake Tahoe-Sandy Way				
AQS ID	06-017-0011				
GPS Coordinates	38.94498, -119.97061				
Street Address	3337 Sandy Way, South Lake Tahoe, 96150				
County	El Dorado				
Distance to roadways (meters)	196 to US-50				
Traffic Count (AADT, year)	29,200				
Ground Cover	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other)	Sacramento-Roseville-Arden-Arcade Metropolitan Statistical Area				
Pollutant, POC	PM10, 5				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	81102				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Population Exposure				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Met One BAM 1020				
Method code	122				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	ARB				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	ARB				
Spatial scale	Middle				
Monitoring start date	6/1/2001				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	6.0				
Distance from supporting structure (meters)	3.0				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10 meters				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	None				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	Monthly				
Frequency of one-point QC check for gaseous instruments	N/A				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	6/13/2018 11/07/2018				

Feather River AQMD

Local Site Name	Sutter Buttes (seasonal)				
AQS ID	06-101-0004				
GPS Coordinates	39.20556, -121.82046				
Street Address	Top of South Butte, Sutter Buttes, 95982				
County	Sutter				
Distance to roadways (meters)	6,100 to CA-20				
Traffic Count (AADT/year)	7,400 (2015)				
Ground Cover	Gravel				
Representative statistical area name (i.e. MSA, CBSA, other)	Yuba City Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	44201				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Highest Concentration; Regional Transport				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Teledyne API 400				
Method code	87				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	ARB				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	ARB				
Spatial scale	Regional				
Monitoring start date	05/01/1993				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	Apr-Oct				
Probe height (meters)	6.7				
Distance from supporting structure (meters)	1.2				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	N/A (No trees)				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	7.6				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	Daily				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	5/17/2018				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A				

Local Site Name	Yuba City				
AQS ID	06-101-0003				
GPS Coordinates	39.13876, -121.61872				
Street Address	773 Almond St, Yuba City, 95991				
County	Sutter				
Distance to roadways (meters)	275 to CA-20				
Traffic Count (AADT, year)	38,500 (2015)				
Ground Cover	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other)	Yuba City Metropolitan Statistical Area				
Pollutant, POC	NO2, 1	Ozone, 1	PM10, 3	PM2.5, 1	PM2.5, 3
Primary, QA-Audit, Supplementary, or N/A	N/A	N/A	Primary	Primary	Supplementary
Parameter Code	42602	44201	81102	88101	88502
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS	Public Information
Site type(s)	Population Exposure	Highest Concentration	Population Exposure	Population Exposure	Population Exposure
Monitor type(s)	SLAMS	SLAMS	SLAMS	SLAMS	Other
Network affiliation(s)	N/A	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Teledyne API 200	Teledyne API 400	Met One BAM 1020	Thermo 2025i	Met One BAM 1020
Method code	99	87	122	145	731
FRM/FEM/ARM/Other	FRM	FEM	FEM	FRM	Other
Collecting Agency	ARB	ARB	ARB	ARB	ARB
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A	N/A	ARB	N/A
Reporting Agency	ARB	ARB	ARB	ARB	ARB
Spatial scale	Neighborhood	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date	1/1/1989	10/01/1989	6/11/2014	12/19/1998	6/14/2004
Current sampling frequency	Continuous	Continuous	Continuous	1:1	Continuous
Required sampling frequency including exceptional events	N/A	N/A	N/A	1:3	N/A
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec
Probe height (meters)	8.4	8.4	9.6	7.7	9.7
Distance from supporting structure (meters)	1.1	1.1	2.3	2.2	2.4
Distance from obstructions on roof (meters)	1.8 (Wall)	1.8 (Wall)	1.8 (Wall)	1.8 (Wall)	1.8 (Wall)
Height above probe for obstructions on roof (meters)	0.9	0.9	0.9	0.9	0.9
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	No obstructions
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A	N/A	N/A
Distance to nearest tree drip line (meters)	>10 meters	>10 meters	>10 meters	>10 meters	>10 meters
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A	N/A
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A	N/A	N/A	1.1
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360	360	360
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	N/A	N/A	N/A
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	17.8	16.4	N/A	N/A	N/A
Will there be changes within the next 18 months?	No	No	No	No	No
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A	N/A	Yes	No
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A	N/A	Monthly	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	Monthly	N/A	Monthly
Frequency of one-point QC check for gaseous instruments	Daily	Daily	N/A	N/A	N/A
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	9/13/2018	9/13/2018	N/A	N/A	N/A
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	N/A	3/13/2018 9/13/2018	3/13/2018 9/13/2018	3/13/2018 9/13/2018

Glenn County APCD

Local Site Name	Willows-Colusa				
AQS ID	06-021-0003				
GPS Coordinates	39.53387, -122.19083				
Street Address	720 N. Colusa St., Willows, 95988				
County	Glenn				
Distance to roadways (meters)	1,092 to CA-162				
Traffic Count (AADT/year)	5,000 (2015)				
Ground Cover	Gravel				
Representative statistical area name (i.e. MSA, CBSA, other)	None				
Pollutant, POC	Ozone, 1	PM10, 3	PM2.5, 3		
Primary, QA-Audit, Supplementary, or N/A	N/A	Primary	Primary		
Parameter Code	44201	81102	88502		
Basic monitoring objective(s)	NAAQS	NAAQS	Public Information		
Site type(s)	Population Exposure	Population Exposure	Population Exposure		
Monitor type(s)	SLAMS	SLAMS	Other		
Network affiliation(s)	N/A	N/A	N/A		
Instrument manufacturer and model	Teledyne API 400	Met One BAM 1020	Met One BAM 1020		
Method code	87	122	731		
FRM/FEM/ARM/Other	FEM	FEM	Other		
Collecting Agency	ARB	ARB	ARB		
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A	N/A		
Reporting Agency	ARB	ARB	ARB		
Spatial scale	Neighborhood	Neighborhood	Neighborhood		
Monitoring start date	09/13/2006	10/1/2013	09/13/2006		
Current sampling frequency	Continuous	Continuous	Continuous		
Required sampling frequency including exceptional events	N/A	N/A	N/A		
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec		
Probe height (meters)	4.7	4.8	4.9		
Distance from supporting structure (meters)	1.9	2.0	2.1		
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A		
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A		
Distance to nearest tree drip line (meters)	>10 meters	>10 meters	>10 meters		
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A		
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A	N/A		
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360		
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A	N/A		
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	7.7	N/A	N/A		
Will there be changes within the next 18 months?	No	No	No		
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A	No		
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A	N/A		
Frequency of flow rate verification for automated PM analyzers	N/A	Monthly	Monthly		
Frequency of one-point QC check for gaseous instruments	Daily	N/A	N/A		
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	5/16/2018	N/A	N/A		
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	5/16/2018 11/29/2018	5/16/2018 11/29/2018		

Imperial County APCD

Local Site Name	Brawley-Main Street #2				
AQS ID	06-025-0007				
GPS Coordinates	32.97831, -115.53904				
Street Address	220 Main St., Brawley, 92227				
County	Imperial				
Distance to roadways (meters)	270 to CA-86				
Traffic Count (AADT/year)	16,400 (2015)				
Ground Cover	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other)	El Centro Metropolitan Statistical Area				
Pollutant, POC	PM10, 3	PM2.5, 1			
Primary, QA-Audit, Supplementary, or N/A	Primary	Primary			
Parameter Code	81102	88101			
Basic monitoring objective(s)	NAAQS	NAAQS			
Site type(s)	Population Exposure	Population Exposure			
Monitor type(s)	SLAMS	SLAMS			
Network affiliation(s)	N/A	N/A			
Instrument manufacturer and model	Met One BAM 1020	R & P 2025			
Method code	122	118			
FRM/FEM/ARM/Other	FEM	FRM			
Collecting Agency	Imperial County	Imperial County			
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	San Diego County			
Reporting Agency	ARB	San Diego County			
Spatial scale	Neighborhood	Neighborhood			
Monitoring start date	8/11/2009	12/15/2003			
Current sampling frequency	Continuous	1:3			
Required sampling frequency including exceptional events	N/A	1:3			
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec			
Probe height (meters)	12.4	12			
Distance from supporting structure (meters)	2.4	2			
Distance from obstructions on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions on roof (meters)	N/A	N/A			
Distance from obstructions not on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions not on roof (meters)	N/A	N/A			
Distance to nearest tree drip line (meters)	N/A (No trees)	N/A (No trees)			
Distance to furnace or incinerator flue (meters)	N/A	N/A			
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A			
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360			
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A			
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A	N/A			
Will there be changes within the next 18 months?	No	Yes			
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	Yes			
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	Monthly			
Frequency of flow rate verification for automated PM analyzers	Monthly	N/A			
Frequency of one-point QC check for gaseous instruments	N/A	N/A			
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A	N/A			
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	1/25/2018 8/08/2018	1/25/2018 8/08/2018			

Local Site Name	El Centro-9th Street				
AQS ID	06-025-1003				
GPS Coordinates	32.79215, -115.56299				
Street Address	150 9th St, El Centro, 92243				
County	Imperial				
Distance to roadways (meters)	528 to CA-86				
Traffic Count (AADT,year)	17,000 (2015)				
Ground Cover	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other)	El Centro Metropolitan Statistical Area				
Pollutant, POC	NO2, 1	Ozone, 1	PM10, 4	PM2.5, 1	
Primary, QA-Audit, Supplementary, or N/A	N/A	N/A	Primary	Primary	
Parameter Code	42602	44201	81102	88101	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS	
Site type(s)	Population Exposure	Highest Concentration	Population Exposure	Population Exposure	
Monitor type(s)	SLAMS	SLAMS	SLAMS	SLAMS	
Network affiliation(s)	N/A	N/A	N/A	N/A	
Instrument manufacturer and model	Teledyne API 200	Teledyne API 400	Met One BAM 1020	R & P 2025	
Method code	99	87	122	118	
FRM/FEM/ARM/Other	FRM	FEM	FEM	FRM	
Collecting Agency	Imperial County	Imperial County	Imperial County	Imperial County	
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A	N/A	San Diego County	
Reporting Agency	ARB	ARB	ARB	San Diego County	
Spatial scale	Neighborhood	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date	1/1/1980	02/01/1988	7/1/2015	1/1/1999	
Current sampling frequency	Continuous	Continuous	Continuous	1:3	
Required sampling frequency including exceptional events	N/A	N/A	N/A	1:3	
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	
Probe height (meters)	11	11	11	11.6	
Distance from supporting structure (meters)	2	2	2	2.1	
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A	N/A	
Distance to nearest tree drip line (meters)	>10	>10	>10	>10	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A	
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A	N/A	N/A	
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360	360	
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	N/A	N/A	
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	18.1	17.5	N/A	N/A	
Will there be changes within the next 18 months?	No	No	No	Yes	
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A	N/A	Yes	
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A	N/A	Monthly	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	Monthly	N/A	
Frequency of one-point QC check for gaseous instruments	Daily	Daily	N/A	N/A	
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	1/24/2018	1/24/2018	N/A	N/A	
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	N/A	1/24/2018 8/08/2018	1/24/2018 8/08/2018	

Local Site Name:	Niland-English Road				
AQS ID:	06-025-4004				
GPS Coordinates:	33.21349, -115.54514				
Street Address:	7711 English Road, Niland, 92257				
County:	Imperial				
Distance to roadways (meters):	2,460 to CA-111				
Traffic Count (AADT, year)	2,950 (2015)				
Ground Cover:	Dirt				
Representative statistical area name (i.e. MSA, CBSA, other):	El Centro Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1	PM10, 3			
Primary, QA-Audit, Supplementary, or N/A	Primary	Primary			
Parameter Code	44201	81102			
Basic monitoring objective(s)	NAAQS	NAAQS			
Site type(s)	Population Exposure	Population Exposure			
Monitor type(s)	SLAMS	SLAMS			
Network affiliation(s)	N/A	N/A			
Instrument manufacturer and model	Teledyne API 400	Met One BAM 1020			
Method code	87	122			
FRM/FEM/ARM/Other	FEM	FEM			
Collecting Agency	Imperial County	Imperial County			
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A			
Reporting Agency	ARB	ARB			
Spatial scale	Neighborhood	Neighborhood			
Monitoring start date	10/1/1997	8/10/2009			
Current sampling frequency	Continuous	Continuous			
Required sampling frequency including exceptional events	N/A	N/A			
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec			
Probe height (meters)	4.6	5.2			
Distance from supporting structure (meters)	1.6	2.2			
Distance from obstructions on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions on roof (meters)	N/A	N/A			
Distance from obstructions not on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions not on roof (meters)	N/A	N/A			
Distance to nearest tree drip line (meters)	>10	>10			
Distance to furnace or incinerator flue (meters)	N/A	N/A			
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A			
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360			
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A			
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	5.1	N/A			
Will there be changes within the next 18 months?	No	No			
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A			
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A			
Frequency of flow rate verification for automated PM analyzers	N/A	Monthly			
Frequency of one-point QC check for gaseous instruments	Daily	N/A			
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	1/23/2018	N/A			
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	1/23/2018 8/08/2018			

Local Site Name:	Westmorland				
AQS ID:	06-025-4003				
GPS Coordinates:	33.03239, -115.62362				
Street Address:	570 Cook St., Westmorland, 92281				
County:	Imperial				
Distance to roadways (meters):	646 to CA-86				
Traffic Count (AADT, year)	13,300 (2015)				
Ground Cover:	Gravel				
Representative statistical area name (i.e. MSA, CBSA, other):	El Centro Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1	PM10, 3			
Primary, QA-Audit, Supplementary, or N/A	Primary	Primary following POC 1 shutdown			
Parameter Code	44201	81102			
Basic monitoring objective(s)	NAAQS	NAAQS			
Site type(s)	Population Exposure	Population Exposure			
Monitor type(s)	SLAMS	SLAMS			
Network affiliation(s)	N/A	N/A			
Instrument manufacturer and model	Teledyne API 400	Met One BAM 1020			
Method code	87	122			
FRM/FEM/ARM/Other	FEM	FEM			
Collecting Agency	Imperial County	Imperial County			
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A			
Reporting Agency	ARB	ARB			
Spatial scale	Regional	Middle			
Monitoring start date	04/01/1993	7/1/2015			
Current sampling frequency	Continuous	Continuous			
Required sampling frequency including exceptional events	N/A	N/A			
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec			
Probe height (meters)	4.3	5.5			
Distance from supporting structure (meters)	1.2	2.5			
Distance from obstructions on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions on roof (meters)	N/A	N/A			
Distance from obstructions not on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions not on roof (meters)	N/A	N/A			
Distance to nearest tree drip line (meters)	>10	>10			
Distance to furnace or incinerator flue (meters)	N/A	N/A			
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A			
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360			
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A			
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	9.5	N/A			
Will there be changes within the next 18 months?	No	No			
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A			
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A			
Frequency of flow rate verification for automated PM analyzers	N/A	Monthly			
Frequency of one-point QC check for gaseous instruments	Daily	N/A			
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	1/25/2018	N/A			
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	1/25/2018 8/08/2018			

Local Site Name:	Calexico-Ethel Street				
AQS ID:	06-025-0005				
GPS Coordinates:	32.67618, -115.48307				
Street Address:	1029 Belcher St, Calexico, 92231				
County:	Imperial				
Distance to roadways (meters):	363 to CA-98				
Traffic Count (AADT,year)	10,000 (2015)				
Ground Cover:	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other):	El Centro Metropolitan Statistical Area				
Pollutant, POC	CO, 3	SO2, 3	NO2, 1	Ozone, 1	
Primary, QA-Audit, Supplementary, or N/A	N/A	N/A	N/A	N/A	
Parameter Code	42101	42401	42602	44201	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS	
Site type(s)	Population Exposure	Population Exposure	Population Exposure	Highest Concentration	
Monitor type(s)	SLAMS	SLAMS	SLAMS	SLAMS	
Network affiliation(s)	N/A	N/A	N/A	N/A	
Instrument manufacturer and model	Teledyne API 300	Thermo 43i-TLE	Teledyne API 200	Teledyne API 400	
Method code	593	560	99	87	
FRM/FEM/ARM/Other	FRM	FEM	FRM	FEM	
Collecting Agency	ARB	ARB	ARB	ARB	
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A	
Reporting Agency	ARB	ARB	ARB	ARB	
Spatial scale	Neighborhood	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date	3/1/2013	3/1/2013	3/1/1994	4/1/1994	
Current sampling frequency	Continuous	Continuous	Continuous	Continuous	
Required sampling frequency including exceptional events	N/A	N/A	N/A	N/A	
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	
Probe height (meters)	5.9	5.9	5.9	5.9	
Distance from supporting structure (meters)	2.2	2.2	2.2	2.2	
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	7(tree)	7(tree)	7(tree)	7(tree)	
Height above probe for obstructions not on roof (meters)	3	3	3	3	
Distance to nearest tree drip line (meters)	7	7	7	7	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A	
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A	N/A	N/A	
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360	360	
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	Teflon	
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	5.5	8	7	5.5	
Will there be changes within the next 18 months?	Yes	Yes	Yes	Yes	
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	Precision S-Th*	Precision S-Th*	Precision S-Th*	Precision S-Th*	
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	12/4/2018	12/4/2018	2/8/2018	2/8/2018	
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	N/A	N/A	N/A	

*one-point. QC checks at the precision level (20% of scale) Sunday through Thursday; Span levels (80% of scale) are conducted Fridays and Saturdays.

(continued)

Local Site Name:	Calexico-Ethel Street				
AQS ID:	06-025-0005				
GPS Coordinates:	32.67618, -115.48307				
Street Address:	1029 Belcher St, Calexico, 92231				
County:	Imperial				
Distance to roadways (meters):	363 to CA-98				
Traffic Count (AADT, year)	10,000 (2015)				
Ground Cover:	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other):	El Centro Metropolitan Statistical Area				
Pollutant, POC	PM10, 3	PM2.5, 1	PM2.5, 2	PM2.5, 3	
Primary, QA-Audit, Supplementary, or N/A	Primary	Primary	QA-Audit	Primary	
Parameter Code	81102	88101	88101	88502	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	Public Information	
Site type(s)	Population Exposure	Population Exposure	Population Exposure	Population Exposure	
Monitor type(s)	SLAMS	SLAMS	SLAMS	Other	
Network affiliation(s)	N/A	CSN supplemental	CSN supplemental	N/A	
Instrument manufacturer and model	Met One BAM 1020	R & P 2025	R & P 2025	Met One BAM 1020 W SCC	
Method code	122	145	145	731	
FRM/FEM/ARM/Other	FEM	FRM	FRM	Other	
Collecting Agency	ARB	ARB	ARB	ARB	
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	ARB	ARB	N/A	
Reporting Agency	ARB	ARB	ARB	ARB	
Spatial scale	Neighborhood	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date	01/15/2016	1/1/1999	1/1/1999	1/1/2016	
Current sampling frequency	Continuous	1:1	1:12	Continuous	
Required sampling frequency including exceptional events	N/A	1:3	N/A	N/A	
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	
Probe height (meters)	5.4	5.8	5.8	5.7	
Distance from supporting structure (meters)	>2	2.1	2.1	1.8	
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	7 (tree)	6 (tree)	6 (tree)	6 (tree)	
Height above probe for obstructions not on roof (meters)	3	3	3	3	
Distance to nearest tree drip line (meters)	7	7	7	7	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A	
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	1.4	1.4	N/A	
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360	360	
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	N/A	
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A	N/A	N/A	N/A	
Will there be changes within the next 18 months?	Yes	Yes	Yes	Yes	
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	Yes	Yes	No	
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	Monthly	Monthly	N/A	
Frequency of flow rate verification for automated PM analyzers	Semi-Monthly	Monthly	Monthly	Semi-Monthly	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	N/A	
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A	N/A	N/A	7/20/2016 2/16/2017	
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	2/08/2018 8/09/2018	2/08/2018 8/09/2018	2/08/2018 8/09/2018	2/08/2018 8/09/2018	

Lake County AQMD

Local Site Name	Middletown-Anderson Springs Road				
AQS ID	06-033-3010				
GPS Coordinates	38.77453, -122.69950				
Street Address	11270 Anderson Springs Road, Middletown, CA 95461				
County	Lake				
Distance to roadways (meters)	1,400 to CA-175				
Traffic Count (AADT,year)	3,200 (2015)				
Ground Cover	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other)	Clearlake Micropolitan Statistical Area				
Pollutant, POC	PM10, 1				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	81102 and 85101				
Basic monitoring objective(s)	Public Information				
Site type(s)	Population Exposure				
Monitor type(s)	Other-GAMP				
Network affiliation(s)	N/A				
Instrument manufacturer and model	R & P 2000				
Method code	126				
FRM/FEM/ARM/Other	FRM				
Collecting Agency	Lake County AQMD				
Analytical Lab (i.e. weigh lab, toxics lab, other)	Lake County AQMD				
Reporting Agency	ARB				
Spatial scale	Urban				
Monitoring start date	4/1/2001, 7/1/2016				
Current sampling frequency	1:6				
Required sampling frequency including exceptional events	1:6				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	5.1				
Distance from supporting structure (meters)	2.1				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	N/A				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	Monthly				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	N/A				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	2/20/2018 12/5/2018				

Local Site Name	Glenbrook				
AQS ID	06-033-3011				
GPS Coordinates	38.84846, -122.75797				
Street Address	8276 High Valley Road (Cobb), Kelseyville, CA 95451				
County	Lake				
Distance to roadways (meters)	6,437 to Bottle Rock Rd. and CA-175				
Traffic Count Notes	1700 (2005)				
Ground Cover	Dirt				
Representative statistical area name (i.e. MSA, CBSA, other)	Clearlake Micropolitan Statistical Area				
Pollutant, POC	PM10, 1				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	81102 and 85101				
Basic monitoring objective(s)	Public Information				
Site type(s)	Population Exposure				
Monitor type(s)	Other-GAMP				
Network affiliation(s)	N/A				
Instrument manufacturer and model	R & P 2000				
Method code	126				
FRM/FEM/ARM/Other	FRM				
Collecting Agency	Lake County AQMD				
Analytical Lab (i.e. weigh lab, toxics lab, other)	Lake County AQMD				
Reporting Agency	ARB				
Spatial scale	Urban				
Monitoring start date	04/01/2001				
Current sampling frequency	1:6				
Required sampling frequency including exceptional events	1:6				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	5.1				
Distance from supporting structure (meters)	2.1				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	5 (Tree)				
Height above probe for obstructions not on roof (meters)	2				
Distance to nearest tree drip line (meters)	10				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	Monthly				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	N/A				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	2/2020/18 12/5/2018				

Local Site Name	Lakeport-S. Main Street				
AQS ID	06-033-3002				
GPS Coordinates	39.018900, -122.913350				
Street Address	2617 South Main Street, Lakeport, CA 95453				
County	Lake				
Distance to roadways (meters)	30				
Traffic Count Notes	15,300 (2015)				
Ground Cover	Clearlake Metropolitan Statistical Area				
Representative statistical area name (i.e. MSA, CBSA, other)					
Pollutant, POC	Ozone, 1	PM10, 1	PM2.5, 1		
Primary, QA-Audit, Supplementary, or N/A	N/A	Primary	Primary		
Parameter Code	44201	81102 and 85101	88101		
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS		
Site type(s)	Population Exposure	General Background	Population Exposure		
Monitor type(s)	SLAMS	SLAMS	SLAMS		
Network affiliation(s)	N/A	N/A	N/A		
Instrument manufacturer and model	Teledyne API 400	R & P 2000	R & P 2000		
Method code	87	126	143		
FRM/FEM/ARM/Other	FEM	FRM	FRM		
Collecting Agency	Lake County AQMD	Lake County AQMD	Lake County AQMD		
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	Lake County AQMD	Lake County AQMD		
Reporting Agency	ARB	ARB	ARB		
Spatial scale	Urban	Neighborhood	Neighborhood		
Monitoring start date	7/1/2017	7/1/2017	7/1/2017		
Current sampling frequency	Continuous	1:6	1:6		
Required sampling frequency including exceptional events	N/A	1:6	1:6		
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec		
Probe height (meters)	4.8	4.5	4.5		
Distance from supporting structure (meters)	2.2	2	2		
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A		
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A		
Distance to nearest tree drip line (meters)	>10m	>10m	>10m		
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A		
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A	N/A		
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360		
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A	N/A		
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	10.2	N/A	N/A		
Will there be changes within the next 18 months?	No	No	No		
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A	Yes		
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	1/mo	1/mo		
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A		
Frequency of one-point QC check for gaseous instruments	Daily	N/A	N/A		
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	12/6/2018	N/A	N/A		
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	2/20/2018* 12/6/2018	2/20/2018* 12/6/2018		

* not 5-7 months apart due to wildfires

Mariposa County APCD

Local Site Name:	Jerseydale (seasonal)				
AQS ID:	06-043-0006				
GPS Coordinates:	37.54377, -119.83957				
Street Address:	6440 Jerseydale, Mariposa, 95338				
County:	Mariposa				
Distance to roadways (meters):	184 to Jerseydale Road				
Traffic Count (AADT, year)	Not available				
Ground Cover:	Grass				
Representative statistical area name (i.e. MSA, CBSA, other):	None				
Pollutant, POC	Ozone, 1				
Primary, QA-Audit, Supplementary, or N/A	N/A				
Parameter Code	44201				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Highest Concentration				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Teledyne API 400				
Method code	87				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	ARB				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	ARB				
Spatial scale	Regional				
Monitoring start date	07/01/1995				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Apr - 31-Oct				
Probe height (meters)	3.8				
Distance from supporting structure (meters)	1.3				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10 meters				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	6.8*				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	Daily				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	9/11/2018				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A				

*was 25.1 seconds; CAN #377 issued and closed

Local Site Name:	Yosemite Village - Visitor Center				
AQS ID:	06-043-1001				
GPS Coordinates:	37.74871, -119.58709				
Street Address:	Visitors Center, Yosemite Village, Yosemite National Park, 95389				
County:	Mariposa				
Distance to roadways (meters):	220 to Northside Drive				
Traffic Count (AADT,year)	Not available				
Ground Cover:	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other):	None				
Pollutant, POC	PM10, 3	PM2.5, 3			
Primary, QA-Audit, Supplementary, or N/A	Primary	Primary			
Parameter Code	81102	88502			
Basic monitoring objective(s)	NAAQS	Public Information			
Site type(s)	Population Exposure	Population Exposure			
Monitor type(s)	SLAMS	Other			
Network affiliation(s)	N/A	N/A			
Instrument manufacturer and model	Met One BAM 1020	Met One BAM 1020			
Method code	122	731			
FRM/FEM/ARM/Other	FEM	Other			
Collecting Agency	ARB	ARB			
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A			
Reporting Agency	ARB	ARB			
Spatial scale	Middle	Middle			
Monitoring start date	8/9/2014	2/1/2002			
Current sampling frequency	Continuous	Continuous			
Required sampling frequency including exceptional events	N/A	N/A			
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec			
Probe height (meters)	8.6	8.4			
Distance from supporting structure (meters)	2.2	2			
Distance from obstructions on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions on roof (meters)	N/A	N/A			
Distance from obstructions not on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions not on roof (meters)	N/A	N/A			
Distance to nearest tree drip line (meters)	>10	>10*			
Distance to furnace or incinerator flue (meters)	N/A	N/A			
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A			
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360			
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A			
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A	N/A			
Will there be changes within the next 18 months?	No	No			
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	No			
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A			
Frequency of flow rate verification for automated PM analyzers	Monthly	Monthly	Notes: * ARB and EPA concluded that the PM2.5 sampler is not FEM and is not subject to federal siting criteria of CFR Title 40, Part 58, Appendix E; see AQDA issued on 5-15-12.		
Frequency of one-point QC check for gaseous instruments	N/A	N/A			
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A	N/A			
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	4/05/2018 9/13/2018	4/05/2018 9/13/2018			

Local Site Name:	Yosemite NP - Turtleback Dome				
AQS ID:	06-043-0003				
GPS Coordinates:	37.713251, -119.706196				
Street Address:	Turtleback Dome, Yosemite National Park				
County:	Mariposa				
Distance to roadways (meters):	> 100				
Traffic Count (AADT, year)	Not available				
Ground Cover:					
Representative statistical area name (i.e. MSA, CBSA, other):	None				
Pollutant, POC	Ozone, 1				
Primary, QA-Audit, Supplementary, or N/A	N/A				
Parameter Code	44201				
Basic monitoring objective(s)	NAAQS				
Site type(s)	General Background				
Monitor type(s)	Non-EPA Federal				
Network affiliation(s)	CASTNET				
Instrument manufacturer and model	Thermo 49C				
Method code	47				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	National Park Service				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	National Park Service				
Spatial scale	Regional				
Monitoring start date	9/1/1990				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	10				
Distance from supporting structure (meters)					
Distance from obstructions on roof (meters)					
Height above probe for obstructions on roof (meters)					
Distance from obstructions not on roof (meters)	>50				
Height above probe for obstructions not on roof (meters)	10				
Distance to nearest tree drip line (meters)					
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)					
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	1.5				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	Daily				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	9/13/2018				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A				

Mendocino County AQMD

Local Site Name	Fort Bragg - 300 Dana Street				
AQS ID	06-045-0010				
GPS Coordinates	39.43734, -123.78766				
Street Address	300 Dana Street, Fort Bragg, 95437				
County	Mendocino				
Distance to roadways (meters)	1,564 to CA-1				
Traffic Count (AADT/year)	19,300 (2015)				
Ground Cover	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other)	Ukiah Micropolitan Statistical Area				
Pollutant, POC	PM10, 1				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	81102				
Basic monitoring objective(s)	NAAQS				
Site type(s)	General Background				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Met One BAM 1020				
Method code	122				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	Mendocino County				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	ARB				
Spatial scale	Neighborhood				
Monitoring start date	08/17/2011				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	6.9				
Distance from supporting structure (meters)	2.6				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	Monthly				
Frequency of one-point QC check for gaseous instruments	N/A				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	6/05/2018 12/05/2018				

Local Site Name	Ukiah - Gobbi Street				
AQS ID	06-045-0008				
GPS Coordinates	39.14566, -123.20298				
Street Address	306 E. Gobbi St, Ukiah, 95482				
County	Mendocino				
Distance to roadways (meters)	570 to US-101				
Traffic Count (AADT, year)	22,800 (2015)				
Ground Cover	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other)	Ukiah Micropolitan Statistical Area				
Pollutant, POC	Ozone, 1				
Primary, QA-Audit, Supplementary, or N/A	N/A				
Parameter Code	44201				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Population Exposure				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Teledyne API T265				
Method code	199				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	Mendocino County				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	ARB				
Spatial scale	Neighborhood				
Monitoring start date	08/01/1992				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	7				
Distance from supporting structure (meters)	3				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	6.5				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	Weekly				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	6/6/2018				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A				

Local Site Name	Ukiah - Library				
AQS ID	06-045-0006				
GPS Coordinates	39.15047, -123.20655				
Street Address	105 N. Main St, Ukiah, 95482				
County	Mendocino				
Distance to roadways (meters)	847 to US-101				
Traffic Count (AADT, year)	29,200 (2015)				
Ground Cover	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other)	Ukiah Micropolitan Statistical Area				
Pollutant, POC	PM2.5, 3				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	88101				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Population Exposure				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Met One BAM 1020				
Method code	170				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	Mendocino County				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	ARB				
Spatial scale	Neighborhood				
Monitoring start date	12/31/2008				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	9.5				
Distance from supporting structure (meters)	2				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	Yes				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	Monthly				
Frequency of one-point QC check for gaseous instruments	N/A				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	6/06/2018 12/04/2018				

Local Site Name	Willits - Justice Center				
AQS ID	06-045-2002				
GPS Coordinates	39.41174, -123.35264				
Street Address	125 E. Commercial St., Willits, 95490				
County	Mendocino				
Distance to roadways (meters)	820 to US-101				
Traffic Count (AADT, year)	23,600 (2015)				
Ground Cover	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other)	Ukiah Micropolitan Statistical Area				
Pollutant, POC	PM2.5, 3				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	88101				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Population Exposure				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Met One BAM 1020				
Method code	170				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	Mendocino County				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	ARB				
Spatial scale	Neighborhood				
Monitoring start date	09/15/2009				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	11.1				
Distance from supporting structure (meters)	2.5				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	Yes				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	Monthly				
Frequency of one-point QC check for gaseous instruments	N/A				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	6/05/2018 12/04/2018				

Mojave Desert AQMD

Local Site Name	Barstow				
AQS ID	06-071-0001				
GPS Coordinates	34.89405, -117.02471				
Street Address	1301 W. Mountain View St., Barstow, 92311				
County	San Bernardino				
Distance to roadways (meters)	890 to I-15; 890 to CA-247				
Traffic Count (AADT/year)	66,000 (I-15); 18,400 (CA-247) (2015)				
Ground Cover	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other)	Riverside-San Bernardino-Ontario Metropolitan Statistical Area				
Pollutant, POC	CO, 1	NO2, 1	Ozone, 1	PM10, 1	
Primary, QA-Audit, Supplementary, or N/A	N/A	N/A	N/A	Primary	
Parameter Code	42101	42602	44201	81102	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS	
Site type(s)	Population Exposure	Population Exposure	Population Exposure	Population Exposure	
Monitor type(s)	SLAMS	SLAMS	SLAMS	SLAMS	
Network affiliation(s)	N/A	N/A	N/A	N/A	
Instrument manufacturer and model	Teledyne API 300E	Teledyne API 200E	Teledyne API 400T	Met One BAM 1020	
Method code	93	99	87	122	
FRM/FEM/ARM/Other	FRM	FRM	FEM	FEM	
Collecting Agency	Mojave Desert AQMD	Mojave Desert AQMD	Mojave Desert AQMD	Mojave Desert AQMD	
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A	
Reporting Agency	Mojave Desert AQMD	Mojave Desert AQMD	Mojave Desert AQMD	Mojave Desert AQMD	
Spatial scale	Middle	Middle	Middle	Neighborhood	
Monitoring start date	01/01/1973	01/01/1973	01/01/1974	01/01/2014	
Current sampling frequency	Continuous	Continuous	Continuous	Continuous	
Required sampling frequency including exceptional events	N/A	N/A	N/A	N/A	
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	
Probe height (meters)	4.5	4.5	4.5	6	
Distance from supporting structure (meters)	1	1	1	2.5	
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A	N/A	
Distance to nearest tree drip line (meters)	>10	>10	>10	>10	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A	
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A	N/A	N/A	
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360	360	
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	N/A	
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	12.4	13.4	12.4	N/A	
Will there be changes within the next 18 months?	No	No	No	No	
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	Monthly	
Frequency of one-point QC check for gaseous instruments	Every 2 weeks	Every 2 weeks	Every 2 weeks	N/A	
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	2/7/2018	2/7/2018	2/7/2018	N/A	
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	N/A	N/A	2/07/2018 8/06/2018	

Local Site Name	Blythe-Murphy Street				
AQS ID	06-065-9003				
GPS Coordinates	33.61235, -114.60209				
Street Address	445 W Murphy St, Blythe, 92225				
County	Riverside				
Distance to roadways (meters)	674 to I-10				
Traffic Count (AADT, year)	27,200 (2015)				
Ground Cover	Unpaved				
Representative statistical area name (i.e. MSA, CBSA, other)	Riverside-San Bernardino-Ontario Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1				
Primary, QA-Audit, Supplementary, or N/A	Supplementary				
Parameter Code	44201				
Basic monitoring objective(s)	NAAQS, Public Information				
Site type(s)	Population Exposure				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Teledyne API 400				
Method code	87				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	ARB				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	ARB				
Spatial scale	Neighborhood				
Monitoring start date	05/01/2003				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	5.5				
Distance from supporting structure (meters)	2				
Distance from obstructions on roof (meters)	N/A				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	N/A				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	N/A (No trees)				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	11.2				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	Daily				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	2/21/2018				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A				

Local Site Name	Hesperia-Olive Street				
AQS ID	06-071-4001				
GPS Coordinates	34.41650, -117.28559				
Street Address	17288 Olive St, Hesperia, 92340				
County	San Bernardino				
Distance to roadways (meters)	105 to Olive Street; 36 to H Avenue				
Traffic Count (AADT,year)	Not available				
Ground Cover	Dirt				
Representative statistical area name (i.e. MSA, CBSA, other)	Riverside-San Bernardino-Ontario Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1	PM10, 2			
Primary, QA-Audit, Supplementary, or N/A	N/A	Primary			
Parameter Code	44201	81102			
Basic monitoring objective(s)	NAAQS	NAAQS			
Site type(s)	Population Exposure	Population Exposure; General Background			
Monitor type(s)	SLAMS	SLAMS			
Network affiliation(s)	N/A	N/A			
Instrument manufacturer and model	Teledyne API 400T	Met One BAM 1020			
Method code	87	122			
FRM/FEM/ARM/Other	FEM	FEM			
Collecting Agency	Mojave Desert AQMD	Mojave Desert AQMD			
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A			
Reporting Agency	Mojave Desert AQMD	Mojave Desert AQMD			
Spatial scale	Neighborhood	Neighborhood			
Monitoring start date	01/01/1980	01/01/2014			
Current sampling frequency	Continuous	Continuous			
Required sampling frequency including exceptional events	N/A	N/A			
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec			
Probe height (meters)	3.9	4.4			
Distance from supporting structure (meters)	1	>2			
Distance from obstructions on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions on roof (meters)	N/A	N/A			
Distance from obstructions not on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions not on roof (meters)	N/A	N/A			
Distance to nearest tree drip line (meters)	>10	>10			
Distance to furnace or incinerator flue (meters)	N/A	N/A			
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A			
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360			
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A			
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	4.0	N/A			
Will there be changes within the next 18 months?	No	No			
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A			
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A			
Frequency of flow rate verification for automated PM analyzers	N/A	Monthly			
Frequency of one-point QC check for gaseous instruments	Every 2 weeks	N/A			
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	2/1/2018	N/A			
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	2/01/2018 8/07/2018			

Local Site Name:	Joshua Tree National Monument - Black Rock				
AQS ID:	06-071-9002				
GPS Coordinates:	34.06957, -116.38893				
Street Address:	Joshua Tree National Monument, CA 92239				
County:	San Bernardino				
Distance to roadways (meters):	13 (Campground Rd)				
Traffic Count (AADT, year)	Not available				
Ground Cover:	Dirt				
Representative statistical area name (i.e. MSA, CBSA, other):	Riverside-San Bernardino-Ontario Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1				
Primary, QA-Audit, Supplementary, or N/A	N/A				
Parameter Code	44201				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Highest Concentration				
Monitor type(s)	non-EPA Federal				
Network affiliation(s)	CASTNET				
Instrument manufacturer and model	Thermo 491				
Method code	47				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	National Park Service				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	National Park Service				
Spatial scale	Regional				
Monitoring start date	10/1/1993				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	10.3				
Distance from supporting structure (meters)	N/A				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	6.7				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	Daily				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	5/22/2018				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A				

Local Site Name:	Joshua Tree National Park - Pinto Wells				
AQS ID:	06-065-1004				
GPS Coordinates:	33.93983, -115.41085				
Street Address:	Joshua Tree National Monument, CA 92239				
County:	Riverside				
Distance to roadways (meters):	16,600 to CA-62				
Traffic Count (AADT,year)	860 (2015)				
Ground Cover:	Sand				
Representative statistical area name (i.e. MSA, CBSA, other):	Riverside-San Bernardino-Ontario Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1				
Primary, QA-Audit, Supplementary, or N/A	N/A				
Parameter Code	44201				
Basic monitoring objective(s)	Public Information				
Site type(s)	General Background				
Monitor type(s)	non-EPA Federal				
Network affiliation(s)	N/A				
Instrument manufacturer and model	2B Technologies M202				
Method code	190				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	National Park Service				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	National Park Service				
Spatial scale	Regional				
Monitoring start date	5/11/2006				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	6				
Distance from supporting structure (meters)	N/A				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	N/A (no trees)				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	4.4				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	Unknown				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	5/23/2018				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A				

Local Site Name:	Lucerne Valley - Middle School				
AQS ID:	06-071-0013				
GPS Coordinates:	34.41008, -116.90687				
Street Address:	8560 Aliento Rd, Lucerne Valley, 92356				
County:	San Bernardino				
Distance to roadways (meters):	345 to CA-18				
Traffic Count (AADT, year)	8,100 (2015)				
Ground Cover:	Dirt				
Representative statistical area name (i.e. MSA, CBSA, other):	Riverside-San Bernardino-Ontario Metropolitan Statistical Area				
Pollutant, POC	PM10, 2				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	81102				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Population Exposure				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Met One BAM 1020				
Method code	122				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	Mojave Desert AQMD				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	Mojave Desert AQMD				
Spatial scale	Neighborhood				
Monitoring start date	1/14/2015				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	4.7				
Distance from supporting structure (meters)	2.2				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	N/A (No trees)				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	270				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	Monthly				
Frequency of one-point QC check for gaseous instruments	N/A				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	2/01/2018 8/07/2018				

Local Site Name:	Mojave National Preserve				
AQS ID:	06-071-1001				
GPS Coordinates:	35.10190, -115.77670				
Street Address:	47411 Canyon Back Rd, Kelso, 92309				
County:	San Bernardino				
Distance to roadways (meters):	30,800 to I-15				
Traffic Count (AADT, year)	42,000 (2015)				
Ground Cover:	Dirt				
Representative statistical area name (i.e. MSA, CBSA, other):	Riverside-San Bernardino-Ontario Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1				
Primary, QA-Audit, Supplementary, or N/A	N/A				
Parameter Code	44201				
Basic monitoring objective(s)	Public Information				
Site type(s)	General Background				
Monitor type(s)	non-EPA Federal				
Network affiliation(s)	N/A				
Instrument manufacturer and model	2B Technologies M202				
Method code	190				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	National Park Service				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	National Park Service				
Spatial scale	Regional				
Monitoring start date	5/9/2007				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	6				
Distance from supporting structure (meters)	N/A				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	never audited				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	Unknown				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	never audited				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	Unknown				

Local Site Name:	Phelan - Beekley Road & Phelan Road				
AQS ID:	06-071-0012				
GPS Coordinates:	34.42505, -117.58982				
Street Address:	Beekley and Phelan Rd, Phelan, 92371				
County:	San Bernardino				
Distance to roadways (meters):	1291 to CA-138				
Traffic Count (AADT, year)	19,400 (2015)				
Ground Cover:	Dirt				
Representative statistical area name (i.e. MSA, CBSA, other):	Riverside-San Bernardino-Ontario Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1				
Primary, QA-Audit, Supplementary, or N/A	N/A				
Parameter Code	44201				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Population Exposure				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Teledyne API 400T				
Method code	87				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	Mojave Desert AQMD				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	Mojave Desert AQMD				
Spatial scale	Neighborhood				
Monitoring start date	07/01/1987				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	3.9				
Distance from supporting structure (meters)	1.1				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	N/A (No trees)				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	2.0				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	Every 2 weeks				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	2/12/2018				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A				

Local Site Name:	Trona - Athol/Telescope #2				
AQS ID:	06-071-1234				
GPS Coordinates:	35.77446, -117.37210				
Street Address:	Telescope & Athol, Trona, 93562				
County:	San Bernardino				
Distance to roadways (meters):	375 to CA-178				
Traffic Count (AADT, year)	2,300 (2015)				
Ground Cover:	Dirt				
Representative statistical area name (i.e. MSA, CBSA, other):	Riverside-San Bernardino-Ontario Metropolitan Statistical Area				
Pollutant, POC	SO2, 1	NO2, 1	Ozone, 1	PM10, 2	
Primary, QA-Audit, Supplementary, or N/A	N/A	N/A	N/A	Primary	
Parameter Code	42401	42602	44201	81102	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS	
Site type(s)	Source Impact	Source Impact	Population Exposure	Highest Concentration; Source Impact	
Monitor type(s)	SLAMS	SLAMS	SLAMS	SLAMS	
Network affiliation(s)	N/A	N/A	N/A	N/A	
Instrument manufacturer and model	Teledyne API 100E	Teledyne API 200E	Teledyne API 400T	Met One BAM 1020	
Method code	77	99	87	122	
FRM/FEM/ARM/Other	FRM	FRM	FEM	FEM	
Collecting Agency	Mojave Desert AQMD	Mojave Desert AQMD	Mojave Desert AQMD	Mojave Desert AQMD	
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A	
Reporting Agency	Mojave Desert AQMD	Mojave Desert AQMD	Mojave Desert AQMD	Mojave Desert AQMD	
Spatial scale	Neighborhood	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date	04/01/1997	04/01/1997	04/01/1997	6/1/1997	
Current sampling frequency	Continuous	Continuous	Continuous	Continuous	
Required sampling frequency including exceptional events	N/A	N/A	N/A	N/A	
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	
Probe height (meters)	4	4	4	4.6	
Distance from supporting structure (meters)	1.2	1.2	1.2	>10	
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A	N/A	
Distance to nearest tree drip line (meters)	>10	>10	>10	>10	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A	
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A	N/A	N/A	
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360	360	
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	N/A	
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	9.8	10.7	9.5	N/A	
Will there be changes within the next 18 months?	No	No	No	No	
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	Monthly	
Frequency of one-point QC check for gaseous instruments	Every 2 weeks	Every 2 weeks	Every 2 weeks	N/A	
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	10/25/2017	10/24/2018	10/25/2017	N/A	
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	N/A	N/A	4/03/2018 10/24/2018	

Local Site Name:	Victorville - Park Avenue				
AQS ID:	06-071-0306				
GPS Coordinates:	34.51096, -117.32555				
Street Address:	14306 Park Av, Victorville, 92392				
County:	San Bernardino				
Distance to roadways (meters):	416 to CA-18; 416 to I-15				
Traffic Count (AADT, year)	40,000 (CA-18); 87,000 (I-15) (2015)				
Ground Cover:	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other):	Riverside-San Bernardino-Ontario Metropolitan Statistical Area				
Pollutant, POC	CO, 1	SO2, 1	NO2, 1	Ozone, 1	
Primary, QA-Audit, Supplementary, or N/A	N/A	N/A	N/A	N/A	
Parameter Code	42101	42401	42602	44201	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS	
Site type(s)	Population Exposure	Population Exposure	Population Exposure	Population Exposure	
Monitor type(s)	SLAMS	SLAMS	SLAMS	SLAMS	
Network affiliation(s)	N/A	N/A	N/A	N/A	
Instrument manufacturer and model	Teledyne API 300E	Teledyne API 100E	Teledyne API 200E	Teledyne API 400T	
Method code	93	77	99	87	
FRM/FEM/ARM/Other	FRM	FEM	FRM	FEM	
Collecting Agency	Mojave Desert AQMD	Mojave Desert AQMD	Mojave Desert AQMD	Mojave Desert AQMD	
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A	
Reporting Agency	Mojave Desert AQMD	Mojave Desert AQMD	Mojave Desert AQMD	Mojave Desert AQMD	
Spatial scale	Neighborhood	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date	01/01/2000	01/01/2000	01/01/2000	01/01/2000	
Current sampling frequency	Continuous	Continuous	Continuous	Continuous	
Required sampling frequency including exceptional events	N/A	N/A	N/A	N/A	
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	
Probe height (meters)	7.3	7.3	7.3	7.3	
Distance from supporting structure (meters)	1.9	1.9	1.9	1.9	
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A	N/A	
Distance to nearest tree drip line (meters)	N/A (no trees)	N/A (no trees)	N/A (no trees)	N/A (no trees)	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A	
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A	N/A	N/A	
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360	360	
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	Teflon	
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	11.4	11.6	12.3	11.3	
Will there be changes within the next 18 months?	No	No	No	No	
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	Every 2 weeks	Every 2 weeks	Every 2 weeks	Every 2 weeks	
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	1/31/2018	1/31/2018	1/31/2018	1/31/2018	
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	N/A	N/A	N/A	

(continued)

Local Site Name:	Victorville - Park Avenue				
AQS ID:	06-071-0306				
GPS Coordinates:	34.51096, -117.32555				
Street Address:	14306 Park Av, Victorville, 92392				
County:	San Bernardino				
Distance to roadways (meters):	416 to CA-18; 416 to I-15				
Traffic Count (AADT, year)	40,000 (CA-18); 87,000 (I-15)				
Ground Cover:	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other):	Riverside-San Bernardino-Ontario Metropolitan Statistical Area				
Pollutant, POC	PM10, 1	PM2.5, 1	PM2.5, 2		
Primary, QA-Audit, Supplementary, or N/A	Primary	Primary	QA-Audit		
Parameter Code	81102	88101	88101		
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS		
Site type(s)	Population Exposure	Regional Transport; Population Exposure	Regional Transport; Population Exposure		
Monitor type(s)	SLAMS	SLAMS	SLAMS		
Network affiliation(s)	N/A	N/A	N/A		
Instrument manufacturer and model	Met One BAM 1020	Met One BAM 1020	R & P CO 2000		
Method code	122	170	117		
FRM/FEM/ARM/Other	FEM	FEM	FRM		
Collecting Agency	Mojave Desert AQMD	Mojave Desert AQMD	Mojave Desert AQMD		
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A	Mojave Desert AQMD		
Reporting Agency	Mojave Desert AQMD	Mojave Desert AQMD	Mojave Desert AQMD		
Spatial scale	Neighborhood	Neighborhood	Neighborhood		
Monitoring start date	1/1/2014	1/1/2016	1/1/2000		
Current sampling frequency	Continuous	Continuous	1:6		
Required sampling frequency including exceptional events	N/A	N/A	N/A		
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec		
Probe height (meters)	7.4	7.5	7.5		
Distance from supporting structure (meters)	2	2.1	2.1		
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A		
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A		
Distance to nearest tree drip line (meters)	N/A (no trees)	N/A (no trees)	N/A (no trees)		
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A		
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	2	2		
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360		
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A		
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A	N/A	N/A		
Will there be changes within the next 18 months?	No	Yes	Yes		
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	Yes	Yes		
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A	Monthly		
Frequency of flow rate verification for automated PM analyzers	Monthly	Monthly	N/A		
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A		
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A	N/A	N/A		
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	1/31/2018 8/07/2018	1/31/2018 8/07/2018	1/31/2018 8/07/2018		

Northern Sierra AQMD

Local Site Name:	Chester				
AQS ID:	06-063-1007				
GPS Coordinates:	40.30965, -121.22785				
Street Address:	222 1st Ave, Chester 96020				
County:	Plumas				
Distance to roadways (meters):	133 to CA-36				
Traffic Count (AADT, year)	4,800 (2015)				
Ground Cover:	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other):	None				
Pollutant, POC	PM2.5, 3				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	88501				
Basic monitoring objective(s)	Public Information				
Site type(s)	Population Exposure				
Monitor type(s)	Other				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Met One BAM 1020				
Method code	731				
FRM/FEM/ARM/Other	Other				
Collecting Agency	Northern Sierra AQMD				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	Northern Sierra AQMD				
Spatial scale	Neighborhood				
Monitoring start date	1/1/2007				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	7.2				
Distance from supporting structure (meters)	>2				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	No				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	Monthly				
Frequency of one-point QC check for gaseous instruments	N/A				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	3/29/2018 9/19/2018				

Local Site Name:	Grass Valley-Litton Building				
AQS ID:	06-057-0005				
GPS Coordinates:	39.23352, -121.05567				
Street Address:	200 Litton Dr., Suite 320, Grass Valley, 95945				
County:	Nevada				
Distance to roadways (meters):	1,256 to CA-20				
Traffic Count (AADT, year)	37,000 (2015)				
Ground Cover:	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other):	Truckee-Grass Valley Micropolitan Statistical Area				
Pollutant, POC	Ozone, 1	PM2.5, 1	PM2.5, 3		
Primary, QA-Audit, Supplementary, or N/A	N/A	Primary	Supplementary		
Parameter Code	44201	88101	88101		
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS		
Site type(s)	Population Exposure	Population Exposure	Population Exposure		
Monitor type(s)	SLAMS	SLAMS	SLAMS		
Network affiliation(s)	N/A	N/A	N/A		
Instrument manufacturer and model	Teledyne API 400	Thermo Scientific Partisol 2000i	Met One BAM 1020		
Method code	87	117	170		
FRM/FEM/ARM/Other	FEM	FRM	FEM		
Collecting Agency	Northern Sierra	Northern Sierra	Northern Sierra		
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	ARB	N/A		
Reporting Agency	Northern Sierra	ARB	Northern Sierra		
Spatial scale	Neighborhood	Neighborhood	Neighborhood		
Monitoring start date	06/01/1993	12/30/1998	12/6/2017		
Current sampling frequency	Continuous	Continuous	Continuous		
Required sampling frequency including exceptional events	N/A	1:3	N/A		
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec		
Probe height (meters)	11.9	10.2	12.1		
Distance from supporting structure (meters)	3.8	2.1	4		
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A		
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A		
Distance to nearest tree drip line (meters)	>10	>10	>10		
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A		
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A	N/A		
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	270	270	270		
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A	N/A		
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	15.2	N/A	N/A		
Will there be changes within the next 18 months?	No	No	Yes		
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	Yes	Yes		
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	Monthly	N/A		
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	Monthly		
Frequency of one-point QC check for gaseous instruments	Weekly	N/A	N/A		
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	9/17/2018	N/A	N/A		
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	3/28/2018 9/17/2018	3/28/2018 9/17/2018		

Local Site Name:	Portola				
AQS ID:	06-063-1010				
GPS Coordinates:	39.81336, -120.47069				
Street Address:	420 N Gulling St, Portola, 96122				
County:	Plumas				
Distance to roadways (meters):	317 to CA-70				
Traffic Count (AADT,year)	6,600 (2015)				
Ground Cover:	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other):	None				
Pollutant, POC	PM2.5, 1	PM2.5, 2	PM2.5, 3		
Primary, QA-Audit, Supplementary, or N/A	Primary	QA-Audit	Supplementary		
Parameter Code	88101	88101	88501		
Basic monitoring objective(s)	NAAQS	NAAQS	Public Information		
Site type(s)	Population Exposure	Population Exposure	Population Exposure		
Monitor type(s)	SLAMS	SLAMS	Other		
Network affiliation(s)	CSN supplemental	CSN supplemental	CSN supplemental		
Instrument manufacturer and model	Thermo Scientific Partisol 2025i	Thermo Scientific Partisol 2025i	Met One BAM 1020		
Method code	145	145	731		
FRM/FEM/ARM/Other	FRM	FRM	Other		
Collecting Agency	Northern Sierra AQMD	Northern Sierra AQMD	Northern Sierra AQMD		
Analytical Lab (i.e. weigh lab, toxics lab, other)	ARB	ARB	N/A		
Reporting Agency	ARB	ARB	Northern Sierra AQMD		
Spatial scale	Neighborhood	Neighborhood	Neighborhood		
Monitoring start date	7/1/2013	10/30/2015	7/1/2013		
Current sampling frequency	1:3	1:12	Continuous		
Required sampling frequency including exceptional events	1:3	N/A	N/A		
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec		
Probe height (meters)	7.4	7.4	8.3		
Distance from supporting structure (meters)	2.2	2.2	3		
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A		
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A		
Distance to nearest tree drip line (meters)	>10	>10	>10		
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A		
Distance between monitors fulfilling a QA collocation requirement (meters)	2.67	2.67	3		
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360		
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A		
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A	N/A	N/A		
Will there be changes within the next 18 months?	No	No	No		
Is it suitable for comparison against the annual PM2.5 NAAQS?	Yes	Yes	No		
Frequency of flow rate verification for manual PM samplers, including Pb samplers	Monthly	Monthly	N/A		
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	Monthly		
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A		
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A	N/A	N/A		
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	3/29/2018 9/19/2018	3/29/2018 9/19/2018	3/29/2018 9/19/2018		

Local Site Name:	Quincy-N Church Street				
AQS ID:	06-063-1006				
GPS Coordinates:	39.93957, -120.94438				
Street Address:	267 N Church Street, Quincy, 95971				
County:	Plumas				
Distance to roadways (meters):	270 to CA-70; 492 to CA-70				
Traffic Count (AADT,year)	4,800 (CA-70); 9,800 (CA-70) (2015)				
Ground Cover:	Grass				
Representative statistical area name (i.e. MSA, CBSA, other):	None				
Pollutant, POC	PM2.5, 1	PM2.5, 3			
Primary, QA-Audit, Supplementary, or N/A	Primary	Supplementary			
Parameter Code	88101	88501			
Basic monitoring objective(s)	NAAQS	Public Information			
Site type(s)	Population Exposure	Population Exposure			
Monitor type(s)	SLAMS	Other			
Network affiliation(s)	N/A	N/A			
Instrument manufacturer and model	Thermo Scientific Partisol 2025i	Met One BAM 1020			
Method code	118	731			
FRM/FEM/ARM/Other	FRM	Other			
Collecting Agency	Northern Sierra AQMD	Northern Sierra AQMD			
Analytical Lab (i.e. weigh lab, toxics lab, other)	ARB	N/A			
Reporting Agency	ARB	Northern Sierra AQMD			
Spatial scale	Neighborhood	Neighborhood			
Monitoring start date	03/26/1999	1/1/2007			
Current sampling frequency	1:1	Continuous			
Required sampling frequency including exceptional events	1:1	N/A			
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec			
Probe height (meters)	3.5	4.2			
Distance from supporting structure (meters)	2	1.8			
Distance from obstructions on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions on roof (meters)	N/A	N/A			
Distance from obstructions not on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions not on roof (meters)	N/A	N/A			
Distance to nearest tree drip line (meters)	>10	>10			
Distance to furnace or incinerator flue (meters)	N/A	N/A			
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A			
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360			
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A			
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A	N/A			
Will there be changes within the next 18 months?	No	No			
Is it suitable for comparison against the annual PM2.5 NAAQS?	Yes	No			
Frequency of flow rate verification for manual PM samplers, including Pb samplers	Monthly	N/A			
Frequency of flow rate verification for automated PM analyzers	N/A	Monthly			
Frequency of one-point QC check for gaseous instruments	N/A	N/A			
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A	N/A			
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	3/29/2018 9/19/2018	3/29/2018 9/19/2018			

Local Site Name:	Truckee - Fire Station				
AQS ID:	06-057-1001				
GPS Coordinates:	39.32782, -120.18459				
Street Address:	10049 Donner Pass Rd, Truckee, 96161				
County:	Nevada				
Distance to roadways (meters):	825 to I-80				
Traffic Count (AADT/year)	33,000 (2015)				
Ground Cover:	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other):	Truckee-Grass Valley Micropolitan Statistical Area				
Pollutant, POC	PM2.5, 1	PM2.5, 3			
Primary, QA-Audit, Supplementary, or N/A	Primary	Supplementary			
Parameter Code	88101	88501			
Basic monitoring objective(s)	NAAQS	Public Information			
Site type(s)	Population Exposure	Population Exposure			
Monitor type(s)	SLAMS	Other			
Network affiliation(s)	N/A	N/A			
Instrument manufacturer and model	Thermo Scientific Partisol 2025i	Met One BAM 1020			
Method code	145	731			
FRM/FEM/ARM/Other	FRM	Other			
Collecting Agency	Northern Sierra AQMD	Northern Sierra AQMD			
Analytical Lab (i.e. weigh lab, toxics lab, other)	ARB	N/A			
Reporting Agency	ARB	Northern Sierra AQMD			
Spatial scale	Neighborhood	Neighborhood			
Monitoring start date	03/31/1999	1/1/2007			
Current sampling frequency	1:3	Continuous			
Required sampling frequency including exceptional events	1:3	N/A			
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec			
Probe height (meters)	8.3	10.2			
Distance from supporting structure (meters)	2.2	2.2			
Distance from obstructions on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions on roof (meters)	N/A	N/A			
Distance from obstructions not on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions not on roof (meters)	N/A	N/A			
Distance to nearest tree drip line (meters)	>10	>10			
Distance to furnace or incinerator flue (meters)	N/A	N/A			
Distance between monitors fulfilling a QA collocation requirement (meters)	4	N/A			
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360			
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A			
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A	N/A			
Will there be changes within the next 18 months?	No	No			
Is it suitable for comparison against the annual PM2.5 NAAQS?	Yes	No			
Frequency of flow rate verification for manual PM samplers, including Pb samplers	Monthly	N/A			
Frequency of flow rate verification for automated PM analyzers	N/A	Monthly			
Frequency of one-point QC check for gaseous instruments	N/A	N/A			
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A	N/A			
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	3/28/2018 9/18/2018	3/28/2018 9/18/2018			

Local Site Name:	White Cloud (seasonal)				
AQS ID:	06-057-0007				
GPS Coordinates:	39.31779, -120.84527				
Street Address:	26533 CA State Hwy 20, Nevada City, 95959				
County:	Nevada				
Distance to roadways (meters):	240				
Traffic Count (AADT,year)	3,500 (2015)				
Ground Cover:	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other):	Truckee-Grass Valley Micropolitan Statistical Area				
Pollutant, POC	Ozone, 1				
Primary, QA-Audit, Supplementary, or N/A	N/A				
Parameter Code	44201				
Basic monitoring objective(s)	NAAQS				
Site type(s)	General Background				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Teledyne API 400				
Method code	87				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	ARB				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	ARB				
Spatial scale	Regional				
Monitoring start date	06/01/1995				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1 Apr - 31 Oct				
Probe height (meters)	3.9				
Distance from supporting structure (meters)	1.5				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10 meters				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	not operated in 2018				
Will there be changes within the next 18 months?	plan to operate in 2018				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	Daily				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	not operated in 2018				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A				

Northern Sonoma County APCD

Local Site Name	Cloverdale				
AQS ID	06-097-0001				
GPS Coordinates	38.80423, -123.01820				
Street Address	100 S. Washington St, Cloverdale, 95425				
County	Sonoma				
Distance to roadways (meters)	623 to US-101				
Traffic Count (AADT/year)	15,400 (2015)				
Ground Cover	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other)	Santa Rosa Metropolitan Statistical Area				
Pollutant, POC	PM10, 2				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	81102				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Population Exposure				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Met One BAM 1020				
Method code	122				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	Northern Sonoma				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	ARB				
Spatial scale	Neighborhood				
Monitoring start date	1/1/1990				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	5.9				
Distance from supporting structure (meters)	2.4				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	Monthly				
Frequency of one-point QC check for gaseous instruments	N/A				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	6/07/2018 12/03/2018				

Local Site Name	Guerneville-Church and 1st				
AQS ID	06-097-3002				
GPS Coordinates	38.50107, -122.99819				
Street Address	16255 1st Street Guerneville, 95446				
County	Sonoma				
Distance to roadways (meters)	160 to CA-116				
Traffic Count (AADT,year)	9,000 (2015)				
Ground Cover	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other)	Santa Rosa Metropolitan Statistical Area				
Pollutant, POC	PM10, 1				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	81102				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Population Exposure				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Met One BAM 1020				
Method code	122				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	Northern Sonoma				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	Northern Sonoma				
Spatial scale	Neighborhood				
Monitoring start date	4/1/1990				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	5				
Distance from supporting structure (meters)	2				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	Monthly				
Frequency of one-point QC check for gaseous instruments	N/A				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	6/07/2018 12/03/2018				

Local Site Name:	Healdsburg - Matheson				
AQS ID:	06-097-0002				
GPS Coordinates:	38.61090, -122.86878				
Street Address:	133 Matheson St, Healdsburg, 95448				
County:	Sonoma				
Distance to roadways (meters):	540 to US-101				
Traffic Count (AADT,year)	40,500 (2015)				
Ground Cover:	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other):	Santa Rosa Metropolitan Statistical Area				
Pollutant, POC	PM10, 2				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	81102				
Basic monitoring objective(s)	NAAQS				
Site type(s)	General Background				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Met One BAM 1020				
Method code	122				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	Northern Sonoma				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	ARB				
Spatial scale	Urban				
Monitoring start date	5/21/1998				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	6.5				
Distance from supporting structure (meters)	2.5				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	Monthly				
Frequency of one-point QC check for gaseous instruments	N/A				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	6/07/2018 12/03/2018				

Local Site Name:	Healdsburg-Municipal Airport				
AQS ID:	06-097-1003				
GPS Coordinates:	38.65407, -122.90187				
Street Address:	200A Heidelberg Way, Healdsburg, 95448				
County:	Sonoma				
Distance to roadways (meters):	319 to Lytton Springs Road				
Traffic Count (AADT,year)	976 (Sonoma County Traffic Surveys)				
Ground Cover:	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other):	Santa Rosa Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1				
Primary, QA-Audit, Supplementary, or N/A	N/A				
Parameter Code	44201				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Highest Concentration				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Teledyne API 400				
Method code	87				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	Regional				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	ARB				
Spatial scale	Urban				
Monitoring start date	06/01/1991				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	6				
Distance from supporting structure (meters)	2.5				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon, Glass Borosilicate				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	13.9				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	Biweekly				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	6/7/2018				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A				

Placer County APCD

Local Site Name:	Auburn - Atwood Rd				
AQS ID:	06-061-0003				
GPS Coordinates:	38.93568, -121.09959				
Street Address:	11645 Atwood Rd., Auburn, 95603				
County:	Placer				
Distance to roadways (meters):	446 to CA-49				
Traffic Count (AADT/year)	39,000 (2015)				
Ground Cover:	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other):	Sacramento-Roseville-Arden-Arcade Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1	PM2.5, 1			
Primary, QA-Audit, Supplementary, or N/A	N/A	Primary			
Parameter Code	44201	88101			
Basic monitoring objective(s)	NAAQS	NAAQS			
Site type(s)	Population Exposure	Population Exposure			
Monitor type(s)	SLAMS	SLAMS			
Network affiliation(s)	N/A	N/A			
Instrument manufacturer and model	Teledyne API 400	Met One BAM1020			
Method code	87	170			
FRM/FEM/ARM/Other	FEM	FEM			
Collecting Agency	Placer County	Placer County			
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A			
Reporting Agency	Placer County	Placer County			
Spatial scale	Neighborhood	Neighborhood			
Monitoring start date	06/24/2011	1/1/2012			
Current sampling frequency	Continuous	Continuous			
Required sampling frequency including exceptional events	N/A	N/A			
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec			
Probe height (meters)	5.8	7			
Distance from supporting structure (meters)	2.8	4			
Distance from obstructions on roof (meters)	No obstacles	No obstacles			
Height above probe for obstructions on roof (meters)	N/A	N/A			
Distance from obstructions not on roof (meters)	No obstacles	No obstacles			
Height above probe for obstructions not on roof (meters)	N/A	N/A			
Distance to nearest tree drip line (meters)	>10	>10			
Distance to furnace or incinerator flue (meters)	N/A	N/A			
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A			
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360			
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A			
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	15.5	N/A			
Will there be changes within the next 18 months?	No	No			
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	Yes			
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A			
Frequency of flow rate verification for automated PM analyzers	N/A	Monthly			
Frequency of one-point QC check for gaseous instruments	Every 8-10 days	N/A			
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	7/31/2018	N/A			
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	1/30/2018 7/31/2018			

Local Site Name:	Colfax-City Hall				
AQS ID:	06-061-0004				
GPS Coordinates:	39.09979, -120.95391				
Street Address:	33 S. Main St., Colfax, 95713				
County:	Placer				
Distance to roadways (meters):	404 to CA-174; 567 to I-80				
Traffic Count (AADT,year)	6,100 (CA-174); 27,600 (I-80) (2015)				
Ground Cover:	Paved				
Representative statistical area name (i.e. MSA, CBSA, other):	Sacramento-Roseville-Arden-Arcade Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1	PM2.5, 3			
Primary, QA-Audit, Supplementary, or N/A	Primary	Primary			
Parameter Code	44201	88501			
Basic monitoring objective(s)	NAAQS	Public Information			
Site type(s)	Population Exposure	Population Exposure			
Monitor type(s)	SLAMS	Other			
Network affiliation(s)	N/A	N/A			
Instrument manufacturer and model	Teledyne API 400	Met One BAM1020			
Method code	87	731			
FRM/FEM/ARM/Other	FEM	Other			
Collecting Agency	Placer County	Placer County			
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A			
Reporting Agency	Placer County	Placer County			
Spatial scale	Neighborhood	Neighborhood			
Monitoring start date	01/01/1992	1/1/2012			
Current sampling frequency	Continuous	Continuous			
Required sampling frequency including exceptional events	N/A	N/A			
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec			
Probe height (meters)	6.7	7.5			
Distance from supporting structure (meters)	1.4	2.2			
Distance from obstructions on roof (meters)	No obstructions	No obstacles			
Height above probe for obstructions on roof (meters)	N/A	N/A			
Distance from obstructions not on roof (meters)	No obstructions	No obstacles			
Height above probe for obstructions not on roof (meters)	N/A	N/A			
Distance to nearest tree drip line (meters)	>10	>10			
Distance to furnace or incinerator flue (meters)	N/A	N/A			
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A			
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360			
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A			
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	15.1	N/A			
Will there be changes within the next 18 months?	No	No			
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	No			
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A			
Frequency of flow rate verification for automated PM analyzers	N/A	Monthly			
Frequency of one-point QC check for gaseous instruments	Every 8-10 days	N/A			
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	8/1/2018	N/A			
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	1/30/2018 8/01/2018			

Local Site Name:	Lincoln-Moore Road				
AQS ID:	06-061-2003				
GPS Coordinates:	38.86794, -121.33835				
Street Address:	2885 Moore Road, Lincoln, 95648				
County:	Placer				
Distance to roadways (meters):	20 to Moore Road				
Traffic Count (AADT,year)	500 (2019)				
Ground Cover:	Grass				
Representative statistical area name (i.e. MSA, CBSA, other):	Sacramento-Roseville-Arden-Arcade Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1	PM2.5, 3			
Primary, QA-Audit, Supplementary, or N/A	Primary	Primary			
Parameter Code	44201	88501			
Basic monitoring objective(s)	NAAQS	Public Information			
Site type(s)	Population Exposure	Population Exposure			
Monitor type(s)	SLAMS	Other			
Network affiliation(s)	N/A	N/A			
Instrument manufacturer and model	Teledyne API 400	Met One BAM1020			
Method code	87	731			
FRM/FEM/ARM/Other	FEM	Other			
Collecting Agency	Placer County	Placer County			
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A			
Reporting Agency	Placer County	Placer County			
Spatial scale	Neighborhood	Neighborhood			
Monitoring start date	11/1/2018	11/1/2018			
Current sampling frequency	Continuous	Continuous			
Required sampling frequency including exceptional events	N/A	N/A			
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec			
Probe height (meters)	3.6	4.4			
Distance from supporting structure (meters)	1.1	2.2			
Distance from obstructions on roof (meters)	No obstructions	No obstacles			
Height above probe for obstructions on roof (meters)	N/A	N/A			
Distance from obstructions not on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions not on roof (meters)	N/A	N/A			
Distance to nearest tree drip line (meters)	>10	>10			
Distance to furnace or incinerator flue (meters)	N/A	N/A			
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A			
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360			
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A			
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A	N/A			
Will there be changes within the next 18 months?	No	No			
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	No			
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A			
Frequency of flow rate verification for automated PM analyzers	N/A	Monthly			
Frequency of one-point QC check for gaseous instruments	Every 8-10 days	N/A			
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A	N/A			
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	new for 2019			

Local Site Name:	Tahoe City-Fairway Drive				
AQS ID:	06-061-1004				
GPS Coordinates:	39.16602, -120.14883				
Street Address:	221 Fairway Drive, Tahoe City, 96145				
County:	Placer				
Distance to roadways (meters):	280 to CA- 89; 377 to CA-28				
Traffic Count (AADT,year)	10,800 (CA- 89); 11,800 (CA-28) (2015)				
Ground Cover:	Dirt				
Representative statistical area name (i.e. MSA, CBSA, other):	Sacramento-Roseville-Arden-Arcade Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1	PM2.5, 3			
Primary, QA-Audit, Supplementary, or N/A	Primary	Primary			
Parameter Code	44201	88501			
Basic monitoring objective(s)	NAAQS	Public Information			
Site type(s)	General Background	General Background			
Monitor type(s)	SLAMS	Other			
Network affiliation(s)	N/A	N/A			
Instrument manufacturer and model	Teledyne API 400	Met One BAM1020			
Method code	87	731			
FRM/FEM/ARM/Other	FEM	Other			
Collecting Agency	Placer County	Placer County			
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A			
Reporting Agency	Placer County	Placer County			
Spatial scale	Urban	Urban			
Monitoring start date	11/01/2013	11/01/2013			
Current sampling frequency	Continuous	Continuous			
Required sampling frequency including exceptional events	N/A	N/A			
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec			
Probe height (meters)	3.6	4.4			
Distance from supporting structure (meters)	1.2	2			
Distance from obstructions on roof (meters)	No obstructions	No obstacles			
Height above probe for obstructions on roof (meters)	N/A	N/A			
Distance from obstructions not on roof (meters)	No obstructions	No obstacles			
Height above probe for obstructions not on roof (meters)	N/A	N/A			
Distance to nearest tree drip line (meters)	>10	>10			
Distance to furnace or incinerator flue (meters)	N/A	N/A			
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A			
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360			
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A			
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	13.1	N/A			
Will there be changes within the next 18 months?	No	No			
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	No			
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A			
Frequency of flow rate verification for automated PM analyzers	N/A	Monthly			
Frequency of one-point QC check for gaseous instruments	Every 8-10 days	N/A			
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	8/2/2018	N/A			
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	1/30/2018 8/02/2018			

Local Site Name:	Roseville-N Sunrise Ave					
AQS ID:	06-061-0006					
GPS Coordinates:	38.74643, -121.26498					
Street Address:	151 N Sunrise Ave, Roseville, 95661					
County:	Placer					
Distance to roadways (meters):	330 to I-80					
Traffic Count (AADT, year)	175,500 (2015)					
Ground Cover:	Asphalt					
Representative statistical area name (i.e. MSA, CBSA, other):	Sacramento-Roseville-Arden-Arcade Metropolitan Statistical Area					
Pollutant, POC	NO2, 1	Ozone, 1	PM10, 3	PM2.5, 1	PM2.5, 2	PM2.5, 3
Primary, QA-Audit, Supplementary, or N/A	N/A	N/A	Primary	Primary	QA-Audit	Supplementary
Parameter Code	42602	44201	81102	88101	88101	88502
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS	NAAQS	Public Information
Site type(s)	Population Exposure	Highest Concentration	Highest Concentration	Population Exposure	Population Exposure	Population Exposure
Monitor type(s)	SLAMS	SLAMS	SLAMS	SLAMS	SLAMS	Other
Network affiliation(s)	N/A	N/A	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Teledyne API 200	Teledyne API 400	Met One BAM 1020	Thermo 2000i	Thermo 2000i	Met One BAM 1020
Method code	99	87	122	143	143	731
FRM/FEM/ARM/Other	FRM	FEM	FEM	FRM	FRM	Other
Collecting Agency	ARB	ARB	ARB	ARB	ARB	ARB
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A	N/A	ARB	ARB	N/A
Reporting Agency	ARB	ARB	ARB	ARB	ARB	ARB
Spatial scale	Neighborhood	Neighborhood	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date	01/13/1993	01/13/1993	4/1/2015	12/31/1998	4/18/2015	6/23/2004
Current sampling frequency	Continuous	Continuous	Continuous	1:6	1:6	Continuous
Required sampling frequency including exceptional events	N/A	N/A	N/A	1:3	N/A	N/A
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec
Probe height (meters)	8.5	8.5	7.9	7	7	7.9
Distance from supporting structure (meters)	3.5	3.5	2.9	2	2	2.9
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	No obstructions	No obstructions
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	No obstructions	No obstructions
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A	N/A	N/A	N/A
Distance to nearest tree drip line (meters)	>10 meters	>10 meters	>10 meters	>10 meters	>10 meters	>10 meters
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A	N/A	N/A
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A	N/A	2.7	2.7	N/A
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360	360	360	360
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	N/A	N/A	N/A	N/A
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	18.7	16.4	N/A	N/A	N/A	N/A
Will there be changes within the next 18 months?	No	No	No	No	No	No
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A	N/A	Yes	Yes	No
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A	N/A	Monthly	Monthly	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	Monthly	N/A	N/A	Monthly
Frequency of one-point QC check for gaseous instruments	Daily	Daily	N/A	N/A	N/A	N/A
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	9/6/2018	5/31/2018	N/A	N/A	N/A	N/A
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	N/A	4/27/2017 10/3/2017	5/31/2018 11/09/2018	5/31/2018 11/09/2018	5/31/2018 11/09/2018

Shasta County AQMD

Local Site Name	Anderson-North Street				
AQS ID	06-089-0007				
GPS Coordinates	40.45318, -122.29883				
Street Address	2220 North St, Anderson, 96007				
County	Shasta				
Distance to roadways (meters)	717 to CA-273; 818 to I-5				
Traffic Count (AADT/year)	8,600 (CA-273); 51,000 (I-5) (2015)				
Ground Cover	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other)	Redding Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1	PM10, 1			
Primary, QA-Audit, Supplementary, or N/A	N/A	Primary			
Parameter Code	44201	81102			
Basic monitoring objective(s)	NAAQS	NAAQS			
Site type(s)	Population Exposure	Highest Concentration			
Monitor type(s)	SLAMS	SLAMS			
Network affiliation(s)	N/A	N/A			
Instrument manufacturer and model	Teledyne API 400	Sierra Andersen 1200			
Method code	87	63			
FRM/FEM/ARM/Other	FEM	FRM			
Collecting Agency	Shasta County	Shasta County			
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	ARB			
Reporting Agency	Shasta County	ARB			
Spatial scale	Neighborhood	Neighborhood			
Monitoring start date	05/01/1993	05/01/1993			
Current sampling frequency	Continuous	1:6			
Required sampling frequency including exceptional events	N/A	1:6			
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec			
Probe height (meters)	7	5.5			
Distance from supporting structure (meters)	3	>2			
Distance from obstructions on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions on roof (meters)	N/A	N/A			
Distance from obstructions not on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions not on roof (meters)	N/A	N/A			
Distance to nearest tree drip line (meters)	>10	>10			
Distance to furnace or incinerator flue (meters)	N/A	N/A			
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A			
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360			
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A			
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	5.0	N/A			
Will there be changes within the next 18 months?	No	No			
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A			
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	<90 days			
Frequency of flow rate verification for automated PM analyzers	N/A	N/A			
Frequency of one-point QC check for gaseous instruments	weekly	N/A			
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	3/13/2018	N/A			
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	4/12/2018 9/25/2018			

Local Site Name	Lassen Volcanic NP				
AQS ID	06-089-3003				
GPS Coordinates	40.539991, -121.576462				
Street Address	Manzanita Lake RS, Lassen Volcanic NP				
County	Shasta				
Distance to roadways (meters)	778 to CA-44				
Traffic Count (AADT, year)	1,150 (2015)				
Ground Cover	Dirt				
Representative statistical area name (i.e. MSA, CBSA, other)	Redding Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1				
Primary, QA-Audit, Supplementary, or N/A	N/A				
Parameter Code	44201				
Basic monitoring objective(s)	NAAQS & Research				
Site type(s)	General Background				
Monitor type(s)	Non-EPA Federal				
Network affiliation(s)	CASTNET				
Instrument manufacturer and model	Thermo 49C				
Method code	87				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	National Park Service				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	National Park Service				
Spatial scale	Regional				
Monitoring start date	11/1/1987				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	8				
Distance from supporting structure (meters)	N/A				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	8 (Tree) *				
Height above probe for obstructions not on roof (meters)	15				
Distance to nearest tree drip line (meters)	7.5 *				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	7.4				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	Daily				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	3/13/2018				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A				

Notes:
 * Distance to tree is 8m; height unknown. Waiver (EPA) was granted in 2014.

Local Site Name:	Redding - Health Department				
AQS ID:	06-089-0004				
GPS Coordinates:	40.55013, -122.38092				
Street Address:	2630 Breslauer Way, Redding, 96001				
County:	Shasta				
Distance to roadways (meters):	530 to CA-273				
Traffic Count (AADT, year)	19,200 (2015)				
Ground Cover:	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other):	Redding Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1	PM2.5, 1	PM10, 2		
Primary, QA-Audit, Supplementary, or N/A	N/A	Primary	Primary		
Parameter Code	44201	88101	81102		
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS		
Site type(s)	Population Exposure; Highest Concentration	Population Exposure	Highest Concentration		
Monitor type(s)	SLAMS	SLAMS	SLAMS		
Network affiliation(s)	N/A	N/A	N/A		
Instrument manufacturer and model	Teledyne API 400	R & P 2000	Sierra Andersen 1200		
Method code	87	143	63		
FRM/FEM/ARM/Other	FEM	FRM	FRM		
Collecting Agency	Shasta County	Shasta County	Shasta County		
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	ARB	ARB		
Reporting Agency	Shasta County	ARB	ARB		
Spatial scale	Neighborhood	Neighborhood	Neighborhood		
Monitoring start date	05/01/1990	02/19/1998	01/01/1988		
Current sampling frequency	Continuous	1:6	1:6		
Required sampling frequency including exceptional events	N/A	1:6	1:6		
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec		
Probe height (meters)	9.6	8.7	8.3		
Distance from supporting structure (meters)	3	>2	>2		
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A		
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A		
Distance to nearest tree drip line (meters)	>10	>10	>10		
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A		
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A	N/A		
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360		
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon, Pyrex Borosilicate	N/A	N/A		
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	7.8	N/A	N/A		
Will there be changes within the next 18 months?	No	No	No		
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	Yes	N/A		
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	Monthly	Quarterly		
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A		
Frequency of one-point QC check for gaseous instruments	Weekly	N/A	N/A		
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	3/14/2018	N/A	N/A		
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	3/14/2018 9/25/2018	3/14/2018 9/25/2018		

Local Site Name:	Shasta Lake - Lake Blvd				
AQS ID:	06-089-0009				
GPS Coordinates:	40.68908, -122.40226				
Street Address:	13791 Lake Blvd., Shasta Lake, 96019				
County:	Shasta				
Distance to roadways (meters):	259 to CA-151				
Traffic Count (AADT,year)	1,650 (2015)				
Ground Cover:	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other):	Redding Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1				
Primary, QA-Audit, Supplementary, or N/A	N/A				
Parameter Code	44201				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Population Exposure				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Teledyne API 265				
Method code	87				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	Shasta County				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	Shasta County				
Spatial scale	Neighborhood				
Monitoring start date	04/01/2009				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	5.1				
Distance from supporting structure (meters)	1.5				
Distance from obstructions on roof (meters)	no obstructions *				
Height above probe for obstructions on roof (meters)	1.5				
Distance from obstructions not on roof (meters)	no obstructions *				
Height above probe for obstructions not on roof (meters)	30.5				
Distance to nearest tree drip line (meters)	>10				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	teflon				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	7.7				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	weekly				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	3/14/2018				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A				

Notes:
* Cell tower is not considered an obstruction. Distance to probe is 6m

Local Site Name:	Shasta Lake-La Mesa				
AQS ID:	06-089-0008				
GPS Coordinates:	40.67707, -122.37429				
Street Address:	4066 La Mesa Ave, Shasta Lake, 96019				
County:	Shasta				
Distance to roadways (meters):	488 to CA-151				
Traffic Count (AADT, year)	4,500 (2015)				
Ground Cover:	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other):	Redding Metropolitan Statistical Area				
Pollutant, POC	PM10, 1				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	81102				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Population Exposure				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Sierra Andersen 1200				
Method code	63				
FRM/FEM/ARM/Other	FRM				
Collecting Agency	Shasta County				
Analytical Lab (i.e. weigh lab, toxics lab, other)	ARB				
Reporting Agency	ARB				
Spatial scale	Neighborhood				
Monitoring start date	01/01/2004				
Current sampling frequency	1:6				
Required sampling frequency including exceptional events	1:6				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	7.5				
Distance from supporting structure (meters)	>2				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	Quarterly				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	N/A				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	4/12/2018 9/25/2018				

Siskiyou County APCD

Local Site Name	Yreka				
AQS ID	06-093-2001				
GPS Coordinates	41.72679, -122.63359				
Street Address	530 S. Foothill Dr., Yreka, 96097				
County	Siskiyou				
Distance to roadways (meters)	437 to I-5; 496 to CA-3				
Traffic Count (AADT/year)	16,500 (I-5); 8,700 (CA-3) (2015)				
Ground Cover	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other)	None				
Pollutant, POC	Ozone, 1	PM2.5, 1	PM2.5, 3		
Primary, QA-Audit, Supplementary, or N/A	N/A	Primary	Primary following POC 1 shutdown		
Parameter Code	44201	88101	88101		
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS		
Site type(s)	Highest Conc; Regional Transport; Pop. Exposure	Population Exposure	Population Exposure		
Monitor type(s)	SLAMS	SLAMS	SLAMS		
Network affiliation(s)	N/A	N/A	N/A		
Instrument manufacturer and model	Teledyne API 400E	R & P 2000	Met One BAM 1020		
Method code	87	117	170		
FRM/FEM/ARM/Other	FEM	FRM	FEM		
Collecting Agency	Siskiyou County	ARB	Siskiyou County		
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	ARB	N/A		
Reporting Agency	ARB	ARB	Siskiyou County		
Spatial scale	Neighborhood	Neighborhood	Neighborhood		
Monitoring start date	01/01/1981	5/1/2005	7/1/2018		
Current sampling frequency	Continuous	1:6	Continuous		
Required sampling frequency including exceptional events	N/A	1:3	N/A		
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec		
Probe height (meters)	3.4	4.1	3.7		
Distance from supporting structure (meters)	N/A	N/A	N/A		
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A		
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A		
Distance to nearest tree drip line (meters)	>10	>10	>10		
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A		
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A	N/A		
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360		
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A	N/A		
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	5.0	N/A	N/A		
Will there be changes within the next 18 months?	NO	Shutdown 6/30/2018	No		
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	Yes	Yes		
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	Monthly	Biweekly		
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	Monthly		
Frequency of one-point QC check for gaseous instruments	Daily	N/A	N/A		
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	3/15/2018	N/A	N/A		
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	3/15/2018 Closed	3/15/2018 9/26/2018		

Tehama County APCD

Local Site Name	Red Bluff - Walnut Street				
AQS ID	06-103-0007				
GPS Coordinates	40.17088, -122.25556				
Street Address	1834 Walnut Street, Red Bluff, 96080				
County	Tehama				
Distance to roadways (meters)	1,860 to CA-36				
Traffic Count (AADT,year)	11,400 (2015)				
Ground Cover	Grass				
Representative statistical area name (i.e. MSA, CBSA, other)	Red Bluff Micropolitan Statistical Area				
Pollutant, POC	Ozone, 1	PM10, 1	PM2.5, 3		
Primary, QA-Audit, Supplementary, or N/A	N/A	Primary	Primary		
Parameter Code	44201	81102	88101		
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS		
Site type(s)	Population Exposure	Highest Concentration	General Background		
Monitor type(s)	SLAMS	SLAMS	SLAMS		
Network affiliation(s)	N/A	N/A	N/A		
Instrument manufacturer and model	Teledyne API 400	Sierra Anderson 1200	Met One BAM1020		
Method code	87	63	170		
FRM/FEM/ARM/Other	FEM	FRM	FEM		
Collecting Agency	Tehama County APCD	Tehama County APCD	Tehama County APCD		
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	ARB	N/A		
Reporting Agency	ARB	ARB	ARB		
Spatial scale	Neighborhood	Neighborhood	Neighborhood		
Monitoring start date	1/29/2015	1/24/2015	3/1/2016		
Current sampling frequency	Continuous	1:6	Continuous		
Required sampling frequency including exceptional events	N/A	1:6	N/A		
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec		
Probe height (meters)	6.9	6.3	7.2		
Distance from supporting structure (meters)	2.4	>2	2.7		
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A		
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A		
Distance to nearest tree drip line (meters)	17	>10	>10		
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A		
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A	N/A		
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360		
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Pyrex, borosilicate glass	N/A	N/A		
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	8.2	N/A	N/A		
Will there be changes within the next 18 months?	No	No	No		
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A	Yes		
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	Monthly	N/A		
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	Monthly		
Frequency of one-point QC check for gaseous instruments	Weekly	N/A	N/A		
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	3/5/2018	N/A	N/A		
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	3/05/2018 9/10/2018	3/05/2018 9/10/2018		

Local Site Name	Tuscan Butte (seasonal)				
AQS ID	06-103-0004				
GPS Coordinates	40.26207, -122.09265				
Street Address	Fire Lookout Atop Tuscan Butte, Tuscan Butte, 95080				
County	Tehama				
Distance to roadways (meters)	3,076 to CA-36				
Traffic Count (AADT, year)	1,200 (2015)				
Ground Cover	Gravel				
Representative statistical area name (i.e. MSA, CBSA, other)	Red Bluff Micropolitan Statistical Area				
Pollutant, POC	Ozone, 1				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	44201				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Highest Concentration				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Teledyne API 400				
Method code	87				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	ARB				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	ARB				
Spatial scale	Regional				
Monitoring start date	06/01/1995				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	Apr-Oct				
Probe height (meters)	4.3				
Distance from supporting structure (meters)	1.1				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	N/A (No trees)				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	15.8				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	Daily				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	5/18/2018				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A				

Tuolumne County APCD

Local Site Name:	Sonora - Barretta Street				
AQS ID:	06-109-0005				
GPS Coordinates:	37.98178, -120.37855				
Street Address:	251 S. Barretta St, Sonora, 95370				
County:	Tuolumne				
Distance to roadways (meters):	355 to CA-49				
Traffic Count (AADT, year)	18,300 (2015)				
Ground Cover:	Gravel				
Representative statistical area name (i.e. MSA, CBSA, other):	Sonora Micropolitan Statistical Area				
Pollutant, POC	Ozone, 1				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	44201				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Highest Concentration				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Teledyne API 400				
Method code	87				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	ARB				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	ARB				
Spatial scale	Neighborhood				
Monitoring start date	07/01/1992				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	4.8				
Distance from supporting structure (meters)	1.0				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10 meters				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	5.7				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	Monthly				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	8/8/2018				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A				

Ventura County APCD

Local Site Name:	El Rio-Rio Mesa School #2				
AQS ID:	06-111-3001				
GPS Coordinates:	34.25239, -119.14318				
Street Address:	545 Central Av, El Rio, 93030				
County:	Ventura				
Distance to roadways (meters):	1,116 to CA-232				
Traffic Count (AADT, year)	14,600 (2015)				
Ground Cover:	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other):	Oxnard-Thousand Oaks-Ventura Metropolitan Statistical Area				
Pollutant, POC	NO2, 1	Ozone, 1	PM10, 3	PM2.5, 3	
Primary, QA-Audit, Supplementary, or N/A	N/A	N/A	N/A	N/A	
Parameter Code	42602	44201	81102	88101	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS	
Site type(s)	Population Exposure	Population Exposure	Population Exposure	Population Exposure	
Monitor type(s)	SLAMS	SLAMS	SLAMS	SLAMS	
Network affiliation(s)	PAMS	PAMS	N/A	N/A	
Instrument manufacturer and model	Teledyne API 200	Teledyne API 400	Met One BAM 1020	Met One BAM 1020	
Method code	99	87	122	170	
FRM/FEM/ARM/Other	FRM	FRM	FEM	FEM	
Collecting Agency	Ventura County APCD	Ventura County APCD	Ventura County APCD	Ventura County APCD	
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A	
Reporting Agency	Ventura County APCD	Ventura County APCD	Ventura County APCD	Ventura County APCD	
Spatial scale	Urban	Urban	Neighborhood	Neighborhood	
Monitoring start date	01/01/1980	01/01/1979	07/22/2012	01/26/2012	
Current sampling frequency	Continuous	Continuous	Continuous	Continuous	
Required sampling frequency including exceptional events	N/A	N/A	N/A	N/A	
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	
Probe height (meters)	4.4	4.4	4.6	4.7	
Distance from supporting structure (meters)	1.9	1.9	2.1	2.2	
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A	N/A	
Distance to nearest tree drip line (meters)	>10	>10	>10	>10	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A	
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A	N/A	N/A	
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360	360	
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon, borosilicate glass	Teflon, borosilicate glass	N/A	N/A	
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	13.1	11.6	N/A	N/A	
Will there be changes within the next 18 months?	No	No	No	No	
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A	N/A	Yes	
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	Biweekly	Biweekly	
Frequency of one-point QC check for gaseous instruments	Every Other Day	Every Other Day	N/A	N/A	
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	4/24/2018	4/24/2018	N/A	N/A	
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	N/A	4/24/2018 10/10/2018	4/24/2018 10/10/2018	

Local Site Name:	Ojai - East Ojai Ave				
AQS ID:	06-111-1004				
GPS Coordinates:	34.44806, -119.23130				
Street Address:	1201 E. Ojai Ave, Ojai, 93023				
County:	Ventura				
Distance to roadways (meters):	366 to CA-150				
Traffic Count (AADT,year)	6,500 (2015)				
Ground Cover:	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other):	Oxnard-Thousand Oaks-Ventura Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1	PM2.5, 3			
Primary, QA-Audit, Supplementary, or N/A	N/A	N/A			
Parameter Code	44201	88101			
Basic monitoring objective(s)	NAAQS	NAAQS			
Site type(s)	Population Exposure	Population Exposure			
Monitor type(s)	SLAMS	SLAMS			
Network affiliation(s)	N/A	N/A			
Instrument manufacturer and model	Teledyne API 400	Met One BAM 1020			
Method code	87	170			
FRM/FEM/ARM/Other	FRM	FEM			
Collecting Agency	Ventura County APCD	Ventura County APCD			
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A			
Reporting Agency	Ventura County APCD	Ventura County APCD			
Spatial scale	Urban	Neighborhood			
Monitoring start date	04/01/1996	11/29/2011			
Current sampling frequency	Continuous	Continuous			
Required sampling frequency including exceptional events	N/A	N/A			
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec			
Probe height (meters)	4.4	4.8			
Distance from supporting structure (meters)	1.9	2.3			
Distance from obstructions on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions on roof (meters)	N/A	N/A			
Distance from obstructions not on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions not on roof (meters)	N/A	None			
Distance to nearest tree drip line (meters)	>10	>10			
Distance to furnace or incinerator flue (meters)	N/A	N/A			
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A			
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360			
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon, borosilicate glass	N/A			
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	8.6	N/A			
Will there be changes within the next 18 months?	No	No			
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	Yes			
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A			
Frequency of flow rate verification for automated PM analyzers	N/A	Biweekly			
Frequency of one-point QC check for gaseous instruments	Every Other Day	N/A			
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	4/25/2018	N/A			
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	4/25/2018 10/10/2018			

Local Site Name:	Piru - Pacific				
AQS ID:	06-111-0009				
GPS Coordinates:	34.40428, -118.80998				
Street Address:	3301 Pacific Ave, Piru, 93040				
County:	Ventura				
Distance to roadways (meters):	403 to CA-126				
Traffic Count (AADT/year)	23,500 (2015)				
Ground Cover:	Dirt				
Representative statistical area name (i.e. MSA, CBSA, other):	Oxnard-Thousand Oaks-Ventura Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1	PM2.5, 3			
Primary, QA-Audit, Supplementary, or N/A	N/A	N/A			
Parameter Code	44201	88101			
Basic monitoring objective(s)	NAAQS	NAAQS			
Site type(s)	Population Exposure	Highest Concentration			
Monitor type(s)	SLAMS	SLAMS			
Network affiliation(s)	N/A	N/A			
Instrument manufacturer and model	Teledyne API 400	Met One BAM 1020			
Method code	87	170			
FRM/FEM/ARM/Other	FRM	FEM			
Collecting Agency	Ventura County APCD	Ventura County APCD			
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A			
Reporting Agency	Ventura County APCD	Ventura County APCD			
Spatial scale	Urban	Neighborhood			
Monitoring start date	11/03/2000	11/15/2011			
Current sampling frequency	Continuous	Continuous			
Required sampling frequency including exceptional events	N/A	N/A			
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec			
Probe height (meters)	4.4	4.9			
Distance from supporting structure (meters)	1.8	2.3			
Distance from obstructions on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions on roof (meters)	N/A	N/A			
Distance from obstructions not on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions not on roof (meters)	N/A	N/A			
Distance to nearest tree drip line (meters)	>10	>10			
Distance to furnace or incinerator flue (meters)	N/A	N/A			
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A			
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360			
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon, borosilicate glass	N/A			
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	10.5	N/A			
Will there be changes within the next 18 months?	No	No			
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	Yes			
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A			
Frequency of flow rate verification for automated PM analyzers	N/A	Biweekly			
Frequency of one-point QC check for gaseous instruments	Every Other Day	N/A			
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	4/17/2018	N/A			
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	4/17/2018 10/10/2018			

Local Site Name:	Simi Valley - Cochran Street				
AQS ID:	06-111-2002				
GPS Coordinates:	34.27632, -118.68369				
Street Address:	5400 Cochran St, Simi Valley, 93063				
County:	Ventura				
Distance to roadways (meters):	758 to CA-118				
Traffic Count (AADT, year)	125,000 (2015)				
Ground Cover:	Paved				
Representative statistical area name (i.e. MSA, CBSA, other):	Oxnard-Thousand Oaks-Ventura Metropolitan Statistical Area				
Pollutant, POC	NO2, 1	Ozone, 1	PM10, 3	PM2.5, 3	PM2.5, 4
Primary, QA-Audit, Supplementary, or N/A	N/A	N/A	N/A	Primary	QA-Audit
Parameter Code	42602	44201	81102	88101	88101
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS	Public Information
Site type(s)	Highest Concentration	Highest Concentration	Population Exposure	Highest Concentration	Highest Concentration
Monitor type(s)	SLAMS	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation(s)	PAMS	PAMS	N/A	N/A	N/A
Instrument manufacturer and model	Teledyne API 200	Teledyne API 400	Met One BAM 1020	Met One BAM 1020	Met One BAM 1020
Method code	99	87	122	170	170
FRM/FEM/ARM/Other	FRM	FRM	FEM	FEM	FEM
Collecting Agency	Ventura County APCD	Ventura County APCD	Ventura County APCD	Ventura County APCD	Ventura County APCD
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A	N/A
Reporting Agency	Ventura County APCD	Ventura County APCD	Ventura County APCD	Ventura County APCD	Ventura County APCD
Spatial scale	Urban	Urban	Neighborhood	Neighborhood	Neighborhood
Monitoring start date	06/01/1985	06/01/1985	06/19/2012	06/29/2013	03/17/2014
Current sampling frequency	Continuous	Continuous	Continuous	Continuous	Continuous
Required sampling frequency including exceptional events	N/A	N/A	N/A	N/A	N/A
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec
Probe height (meters)	3.6	3.6	4.6	4.8	4.8
Distance from supporting structure (meters)	1.1	1.1	2.1	2.3	2.3
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	No obstructions
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions	No obstructions	No obstructions
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A	N/A	N/A
Distance to nearest tree drip line (meters)	>10	>10	>10	>10	>10
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	None	None
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A	N/A	2.1	2.1
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360	360	360
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon, borosilicate glass	Teflon, borosilicate glass	N/A	N/A	N/A
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	10.9	11.4	N/A	N/A	N/A
Will there be changes within the next 18 months?	No	No	No	No	No
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A	N/A	Yes	Yes
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	Biweekly	Biweekly	Biweekly
Frequency of one-point QC check for gaseous instruments	Every Other Day	Every Other Day	N/A	N/A	N/A
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	4/19/2018	4/19/2018	N/A	N/A	N/A
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	N/A	4/19/2018 10/10/2018	4/19/2018 10/10/2018	4/19/2018 10/10/2018

Local Site Name:	Thousand Oaks-Moorpark Road				
AQS ID:	06-111-0007				
GPS Coordinates:	34.21017, -118.87051				
Street Address:	2323 Moorpark Rd, Thousand Oaks, 91360				
County:	Ventura				
Distance to roadways (meters):	1,622 to CA-23				
Traffic Count (AADT, year)	112,000 (2015)				
Ground Cover:	Asphalt				
Representative statistical area name (i.e. MSA, CBSA, other):	Oxnard-Thousand Oaks-Ventura Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1	PM2.5, 3			
Primary, QA-Audit, Supplementary, or N/A	N/A	N/A			
Parameter Code	44201	88101			
Basic monitoring objective(s)	NAAQS	NAAQS			
Site type(s)	Population Exposure	Population Exposure			
Monitor type(s)	SLAMS	SLAMS			
Network affiliation(s)	N/A	N/A			
Instrument manufacturer and model	Teledyne API 400	Met One BAM 1020			
Method code	87	170			
FRM/FEM/ARM/Other	FRM	FEM			
Collecting Agency	Ventura County APCD	Ventura County APCD			
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A			
Reporting Agency	Ventura County APCD	Ventura County APCD			
Spatial scale	Urban	Neighborhood			
Monitoring start date	03/01/1992	01/07/2012			
Current sampling frequency	Continuous	Continuous			
Required sampling frequency including exceptional events	N/A	N/A			
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec			
Probe height (meters)	4.4	4.9			
Distance from supporting structure (meters)	1.8	2.3			
Distance from obstructions on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions on roof (meters)	N/A	N/A			
Distance from obstructions not on roof (meters)	No obstructions	No obstructions			
Height above probe for obstructions not on roof (meters)	N/A	N/A			
Distance to nearest tree drip line (meters)	>10	>10			
Distance to furnace or incinerator flue (meters)	N/A	N/A			
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A			
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360			
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon, borosilicate glass	N/A			
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	10.8	N/A			
Will there be changes within the next 18 months?	No	No			
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	Yes			
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A			
Frequency of flow rate verification for automated PM analyzers	N/A	Biweekly			
Frequency of one-point QC check for gaseous instruments	Every Other Day	N/A			
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	4/18/2018	N/A			
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	4/18/2018 10/10/2018			

Yolo-Solano AQMD

Local Site Name:	Davis-UCD Campus				
AQS ID:	06-113-0004				
GPS Coordinates:	38.53455, -121.77340				
Street Address:	Campbell Rd, Davis, 95616				
County:	Yolo				
Distance to roadways (meters):	502 to CA-113				
Traffic Count (AADT, year)	39,300 (2015)				
Ground Cover:	Dirt				
Representative statistical area name (i.e. MSA, CBSA, other):	Sacramento-Roseville-Arden-Arcade Metropolitan Statistical Area				
Pollutant, POC	NO2, 1	Ozone, 1	PM2.5, 3		
Primary, QA-Audit, Supplementary, or N/A	Primary	Primary	Primary		
Parameter Code	42602	44201	88502		
Basic monitoring objective(s)	NAAQS	NAAQS	Public Information		
Site type(s)	Population Exposure	Population Exposure	Population Exposure		
Monitor type(s)	SLAMS	SLAMS	Other		
Network affiliation(s)	N/A	N/A	N/A		
Instrument manufacturer and model	Teledyne API 200	Teledyne API 400	Met One BAM 1020		
Method code	99	87	731		
FRM/FEM/ARM/Other	FRM	FEM	Other		
Collecting Agency	ARB	ARB	ARB		
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A	N/A		
Reporting Agency	ARB	ARB	ARB		
Spatial scale	Neighborhood	Neighborhood	Neighborhood		
Monitoring start date	05/21/1996	09/01/1987	8/14/2003		
Current sampling frequency	Continuous	Continuous	Continuous		
Required sampling frequency including exceptional events	N/A	N/A	N/A		
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec		
Probe height (meters)	5.1	5.1	5.4		
Distance from supporting structure (meters)	1.7	1.7	2		
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A		
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A		
Distance to nearest tree drip line (meters)	>10 meters	>10 meters	>10 meters		
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A		
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A	N/A		
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360		
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	N/A		
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	15.3	11/1/2018	N/A		
Will there be changes within the next 18 months?	No	No	No		
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A	No		
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A	N/A		
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	Monthly		
Frequency of one-point QC check for gaseous instruments	Daily	Daily	N/A		
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	11/1/2018	11/1/2018	N/A		
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	N/A	4/26/2018 11/01/2018		

Local Site Name:	Vacaville-Merchant Street				
AQS ID:	06-095-3001				
GPS Coordinates:	38.35140, -121.99410				
Street Address:	650 Merchant St, Vacaville, 95688				
County:	Solano				
Distance to roadways (meters):	607 to I-80				
Traffic Count (AADT/year)	174,000 (2015)				
Ground Cover:	Grass and asphalt				
Representative statistical area name (i.e. MSA, CBSA, other):	Vallejo-Fairfield Metropolitan Statistical Area				
Pollutant, POC	PM10, 2				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	81102				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Population Exposure				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	GMW Model 1200				
Method code	63				
FRM/FEM/ARM/Other	FRM				
Collecting Agency	Yolo-Solano AQMD				
Analytical Lab (i.e. weigh lab, toxics lab, other)	ARB				
Reporting Agency	ARB				
Spatial scale	Neighborhood				
Monitoring start date	01/01/1988				
Current sampling frequency	1:6				
Required sampling frequency including exceptional events	1:6				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	8.5				
Distance from supporting structure (meters)	>2				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	Monthly				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	N/A				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	5/22/2018 12/11/2018				

Local Site Name:	Vacaville-Ulatis Drive				
AQS ID:	06-095-3003				
GPS Coordinates:	38.35655, -121.94986				
Street Address:	2012 Ulatis Drive, Vacaville, 95687				
County:	Solano				
Distance to roadways (meters):	1,500 to I-80				
Traffic Count (AADT,year)	169,000 (2015)				
Ground Cover:	Dirt				
Representative statistical area name (i.e. MSA, CBSA, other):	Vallejo-Fairfield Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	44201				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Population Exposure; Highest Concentration				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	Teledyne API 400				
Method code	87				
FRM/FEM/ARM/Other	FEM				
Collecting Agency	Yolo-Solano AQMD				
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A				
Reporting Agency	ARB				
Spatial scale	Neighborhood				
Monitoring start date	07/21/2003				
Current sampling frequency	Continuous				
Required sampling frequency including exceptional events	N/A				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	4.4				
Distance from supporting structure (meters)	2				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	7.0				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	Weekly				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	5/15/2018				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A				

Local Site Name:	West Sacramento-15th Street				
AQS ID:	06-113-2001				
GPS Coordinates:	38.57146, -121.52579				
Street Address:	132 W. 15th St, West Sacramento, 95691				
County:	Yolo				
Distance to roadways (meters):	1,338 to I-5; 1,338 to US-50				
Traffic Count (AADT, year)	179,000 (2015)				
Ground Cover:	Pavement				
Representative statistical area name (i.e. MSA, CBSA, other):	Sacramento-Roseville-Arden-Arcade Metropolitan Statistical Area				
Pollutant, POC	PM10, 1				
Primary, QA-Audit, Supplementary, or N/A	Primary				
Parameter Code	81102				
Basic monitoring objective(s)	NAAQS				
Site type(s)	Population Exposure				
Monitor type(s)	SLAMS				
Network affiliation(s)	N/A				
Instrument manufacturer and model	GMW Model 1200				
Method code	63				
FRM/FEM/ARM/Other	FRM				
Collecting Agency	Yolo-Solano AQMD				
Analytical Lab (i.e. weigh lab, toxics lab, other)	ARB				
Reporting Agency	ARB				
Spatial scale	Neighborhood				
Monitoring start date	09/01/1990				
Current sampling frequency	1:6				
Required sampling frequency including exceptional events	1:6				
Sampling season	1-Jan - 31-Dec				
Probe height (meters)	6.1				
Distance from supporting structure (meters)	>2				
Distance from obstructions on roof (meters)	No obstructions				
Height above probe for obstructions on roof (meters)	N/A				
Distance from obstructions not on roof (meters)	No obstructions				
Height above probe for obstructions not on roof (meters)	N/A				
Distance to nearest tree drip line (meters)	>10				
Distance to furnace or incinerator flue (meters)	N/A				
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A				
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360				
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	N/A				
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A				
Will there be changes within the next 18 months?	No				
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A				
Frequency of flow rate verification for manual PM samplers, including Pb samplers	Weekly				
Frequency of flow rate verification for automated PM analyzers	N/A				
Frequency of one-point QC check for gaseous instruments	N/A				
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	N/A				
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	5/22/2018 11/27/2018				

Local Site Name:	Woodland-Gibson Road				
AQS ID:	06-113-1003				
GPS Coordinates:	38.66121, -121.73269				
Street Address:	41929 E Gibson Rd, Woodland, 95776				
County:	Yolo				
Distance to roadways (meters):	1,442 to I-5; 1,642 to CA-113				
Traffic Count (AADT/year)	47,300 (2015)				
Ground Cover:	Grass				
Representative statistical area name (i.e. MSA, CBSA, other):	Sacramento-Roseville-Arden-Arcade Metropolitan Statistical Area				
Pollutant, POC	Ozone, 1	PM10, 1	PM2.5, 1		
Primary, QA-Audit, Supplementary, or N/A	Primary	Primary	Primary		
Parameter Code	44201	81102	88101		
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS		
Site type(s)	Population Exposure	Population Exposure	Population Exposure		
Monitor type(s)	SLAMS	SLAMS	SLAMS		
Network affiliation(s)	N/A	N/A	N/A		
Instrument manufacturer and model	Teledyne API 400	GMW Model 1200	R & P 2025		
Method code	87	63	118		
FRM/FEM/ARM/Other	FEM	FRM	FRM		
Collecting Agency	Yolo-Solano AQMD	Yolo-Solano AQMD	Yolo-Solano AQMD		
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	ARB	ARB		
Reporting Agency	ARB	ARB	ARB		
Spatial scale	Neighborhood	Neighborhood	Neighborhood		
Monitoring start date	05/27/1998	10/26/1998	01/09/1999		
Current sampling frequency	Continuous	1:6	1:6		
Required sampling frequency including exceptional events	N/A	1:6	1:6		
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec	1-Jan - 31-Dec		
Probe height (meters)	3.6	2.2	2.1		
Distance from supporting structure (meters)	1	>2	2		
Distance from obstructions on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions on roof (meters)	N/A	N/A	N/A		
Distance from obstructions not on roof (meters)	No obstructions	No obstructions	No obstructions		
Height above probe for obstructions not on roof (meters)	N/A	N/A	N/A		
Distance to nearest tree drip line (meters)	>10	>10	>10		
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A		
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A	N/A		
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360	360		
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A	N/A		
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	6.7	N/A	N/A		
Will there be changes within the next 18 months?	No	No	No		
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	N/A	Yes		
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	Monthly	Monthly		
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A		
Frequency of one-point QC check for gaseous instruments	Weekly	N/A	N/A		
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	5/16/2018	N/A	N/A		
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	5/16/2018 11/29/2018	5/16/2018 11/29/2018		

Appendix B

Ozone Seasonal Monitoring Waiver Renewal Request

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Ozone Seasonal Waiver Renewal Request

WAIVER JUSTIFICATION FOR SEASONAL OZONE MONITORING SITES

California's ozone monitoring season is defined in 40 Code of Federal Regulations (CFR) Part 58, Appendix D, Table D-3, as January through December. However, section 4.1(i) of the same regulation allows for deviations from the listed ozone season on a state-by-state basis, provided that sufficient information is provided to the United States Environmental Protection Agency (U.S. EPA) and approved by the Regional Administrator. The California Air Resources Board (CARB) maintains six ozone monitors that only operate seasonally during the months of April through October. None of these monitors have ever operated year-round. In 2016, U.S. EPA renewed CARB's seasonal ozone waiver with an increase in the ozone season from six months (May - October) to seven months with the inclusion of April. The purpose of this document is to provide justification for continuing the waivers utilizing the most recent data and evaluating those data against the current 0.070 ppm federal 8-hour standard.

CARB staff has updated several tables and graphs which demonstrated in the past that an April through October monitoring season is adequate for the six seasonal ozone monitors. The following analyses provide the justification needed for the U.S. EPA to continue to grant a waiver for the seasonal sites, in accordance with 40 CFR Part 58.12 (a)(3). The six ozone monitors included in the analyses are listed in Table 1 and shown in Figure 1.

**TABLE 1
SEASONAL OZONE MONITORS**

Site Name	AQS ID	County	Star Year	Current Operating Season	Preliminary 2018 Design Value (ppm) ¹
Echo Summit ²	60170012	El Dorado	2000	April-October	0.070
Cool	60170020	El Dorado	1996	April-October	0.084
Jerseydale	60430006	Mariposa	1995	April-October	0.077
White Cloud Mountain	60570007	Nevada	1995	April-October	N/A ³
Sutter Buttes	61010004	Sutter	1993	April-October	N/A ⁴
Tuscan Butte	61030004	Tehama	1995	April-October	N/A ⁵

¹ Data obtained on March 10, 2019, from CARB's ADAM database: <https://www.arb.ca.gov/adam> and CARB's AQMIS database: <https://www.arb.ca.gov/aqmis2/aqmis2.php>

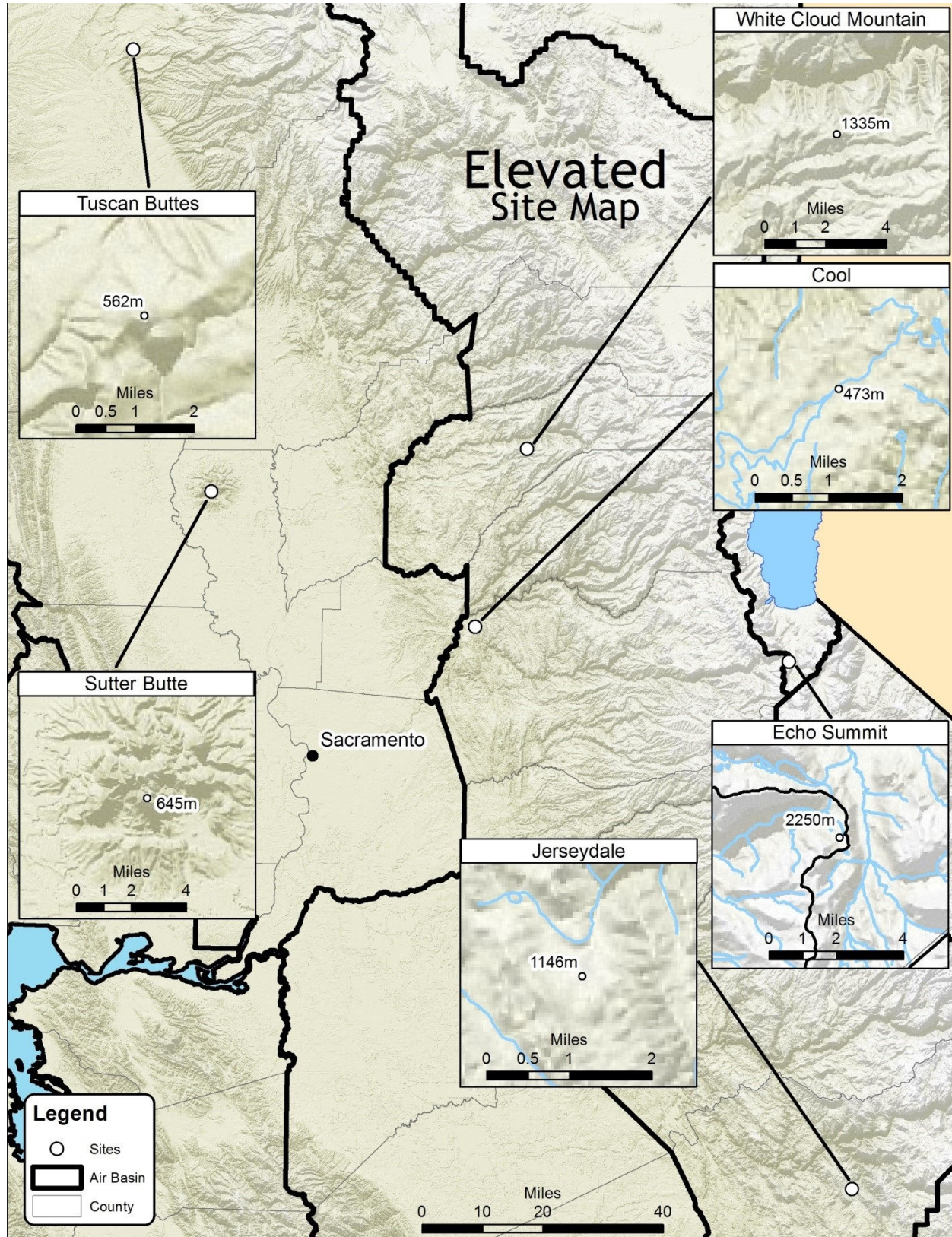
² Echo Summit site did not operate in 2015 due to lease issue and did not operate in April, 2017.

³ White Cloud Mountain site has not operated since 2016 due to shelter and power issues. A date for the relocation and startup of a new site is unknown at this time.

⁴ 2017 data from May 18 to October 31 has been invalidated due to poor quality assurance results.

⁵ 2017 data from April 6 to June 20 has been invalidated due to poor quality assurance results.

Figure 1
CARB SEASONAL OZONE MONITORING SITES



Ozone concentration data used in the analyses were retrieved from CARB's ADAM and AQMIS databases in March 2019. Average of the monthly maximum 8-hour ozone concentrations for each seasonal site covering a 5-year period from 2014 to 2018 are shown in Figure 2 through 7. In addition to averages for the seasonal sites, averages for the closest surrounding site(s) that operate year-round are also depicted. Beginning with 2016, ozone monitoring season was extended to include April. However, some of the seasonal sites were not operated in April during certain years (Echo Summit in 2017; White Cloud Mountain from 2016 to 2018) or their April data was invalidated or incomplete (Echo Summit in 2018; Jerseydale in 2017; Tuscan Butte in 2017 and 2018). Additionally, to enhance understanding of the seasonal variations in ozone concentration, the highest monthly maximum 8-hour ozone concentrations for each of the five years are also shown in Table 2.

Figures 2 to 7 and Table 2 indicate that seasonal sites and their surrounding site(s) show similar seasonal variations and have higher concentrations during summer months (June through September), when weather conditions are conducive to ozone formation and buildup. It shows that concentrations at the seasonal sites during June through September average 11 percent higher than the average of the preceding months (April/May) and an average of 15 percent higher than the averages of the following month (October). Concentrations at the year-round sites show that average percent change between the months of March to April is 18 percent, which is three times higher than those between the months of April to May (6 percent). In addition, the concentrations drop 13 percent from September to October, which is half of the 26 percent drop from October to November. This indicates that maximum ozone concentrations are significantly lower in the early spring and late fall months than in the summer ozone season months. Thus, for the six seasonal ozone monitoring sites, the April through October monitoring season captures the highest annual concentrations.

In addition, fourth high annual ozone concentrations, used in calculating design values, were also estimated. These are compared with the federal standard to determine an area's designation status. Annual fourth high concentrations for each of the seasonal and year-round sites are shown in Table 3, along with the measurement date. All of the fourth high concentrations occurred between May and September, indicating that those are the key monitoring months. It is important to note that, for all of the monitoring site included in this analysis, all of the top 4 ozone measurements occurred during the April through October period, the previously approved seasonal monitoring season. Finally, the fourth high concentrations at the seasonal sites are generally lower than those at the surrounding sites, reflecting the fact that the seasonal ozone sites are not the design sites for their respective planning areas.

The two exceptions are the Sutter Buttes and the Tuscan Butte sites, which present unique situations. Sutter Buttes and Tuscan Butte are high elevation sites, located on isolated hilltops (refer to Figures 8 and 9). The sites were originally deployed to

measure the impact of pollutant transport. Because there are no nearby developed areas, ozone concentrations measured at Sutter Buttes and Tuscan Butte are not representative of population exposure. U.S. EPA recognized the uniqueness of the Sutter Buttes site when promulgating area designations for the 0.080 ppm federal 8-hour ozone standard. U.S. EPA limited the nonattainment area to the area immediately surrounding the Sutter Buttes monitor. Although concentrations at Sutter Buttes are higher than those at Yuba City (the closest populated area), concentrations continue to decrease. Tuscan Butte received similar recognition during designations for the 0.075 ppm federal 8-hour standard and the area immediately surrounding the monitor was designated a nonattainment area.

To account for the lower concentration of the current ozone standard, ozone concentrations were evaluated at two thresholds suggested by U.S. EPA: 0.070 ppm, the current ozone standard threshold (Table 4), and 0.054 ppm, the moderate Air Quality Index (AQI) threshold (Table 5). The tables show counts of the number of days above each threshold by site and month. Tables 4 and 5 indicate that there are no exceedances of the 0.070 ppm standards and only a few above the 0.054 ppm threshold at the year-round sites between the months of November and March. Both Tables 4 and 5 clearly indicate that monitoring, based on concentration information alone, is not needed from November through March. Therefore, the current April through October operating season will continue to be adequate.

In addition to air quality, there are other considerations for maintaining a seasonal monitoring schedule at the Echo Summit, Cool, Jerseydale, White Cloud Mountain, Sutter Buttes, and Tuscan Butte locations. For instance, all six seasonal monitoring sites are located in remote, mountainous areas, and significant distances from CARB headquarters in Sacramento. Also, as denoted in Figure 1, all of the monitors are located at high elevations, with the lowest site, Cool, at 473 meters (1,552 feet) and the highest site, Echo Summit, at 2,250 meters (7,382 feet). These physical characteristics require significant time and resources for servicing the monitoring equipment. Winter weather conditions further complicate the issue, at times making the access roads impassable due to a lack of plowing and unsafe for travel.

Based on our analyses of the measured data against the current 0.070 ppm federal 8-hour standard and other considerations, CARB finds that the April through October monitoring season continues to be adequate for capturing the highest ozone concentrations at the Echo Summit, Cool, Jerseydale, White Cloud Mountain, Sutter Buttes, and Tuscan Butte monitoring sites. Therefore, CARB is recommending that U.S. EPA grant a renewal waiver for seasonal monitoring (April through October) at these sites, in accordance with 40 CFR Part 58.12 (a)(3).

FIGURE 2

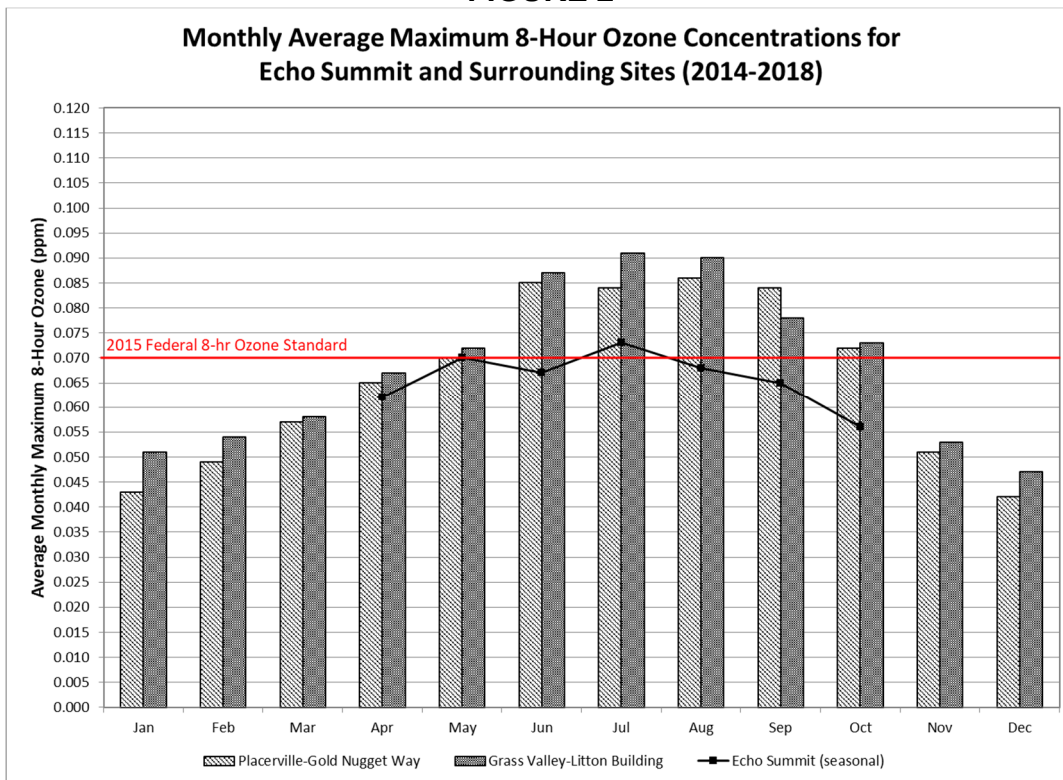


FIGURE 3

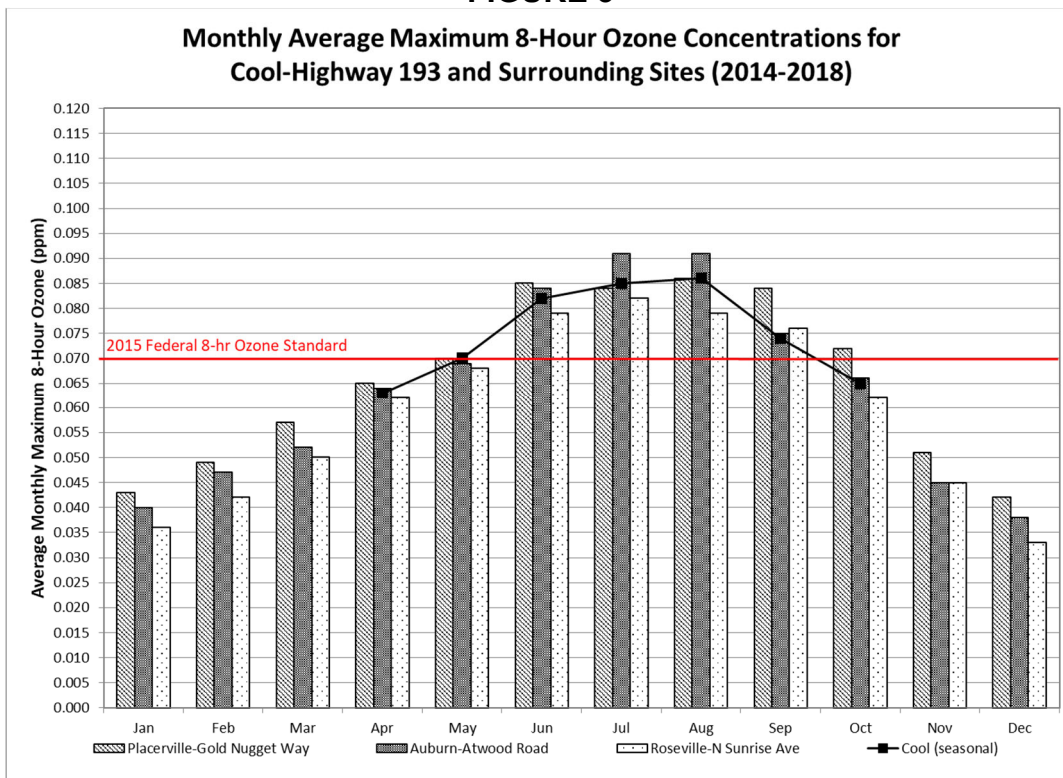


FIGURE 4

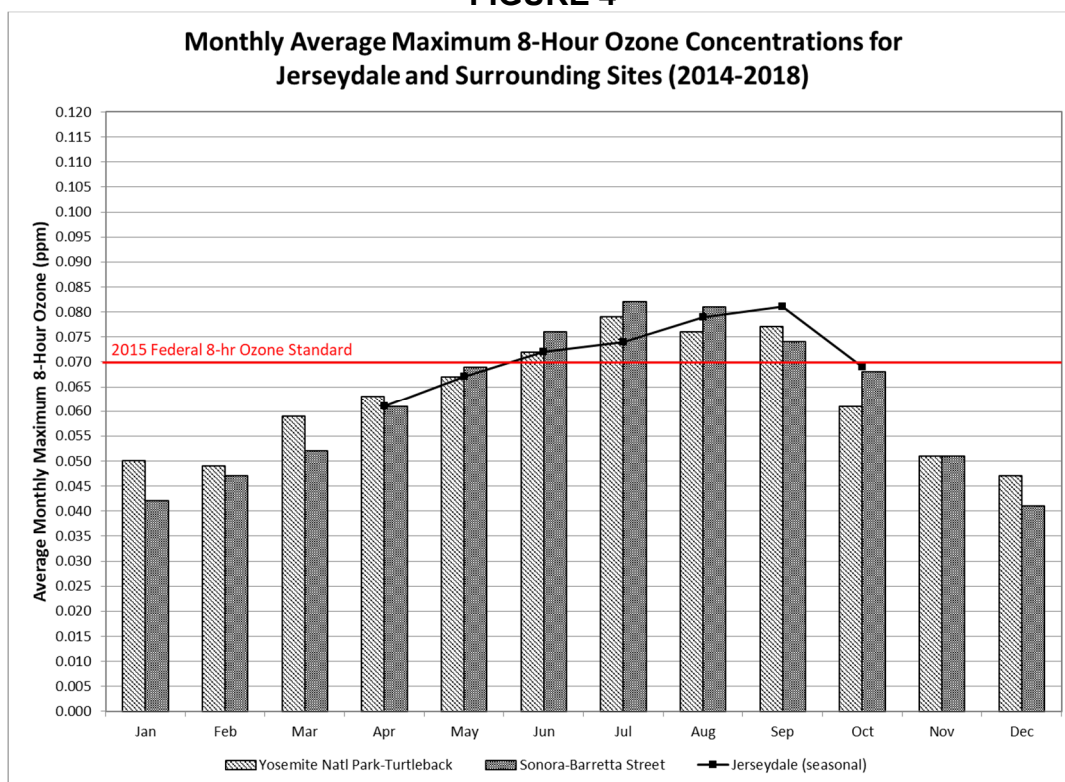
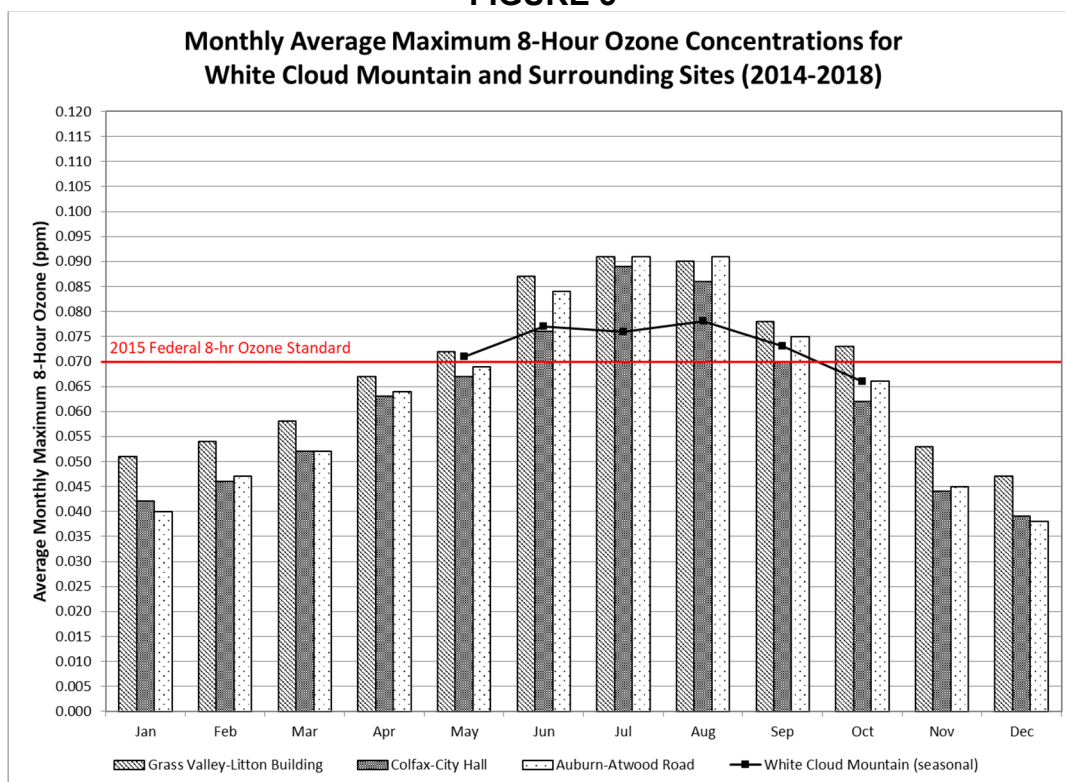
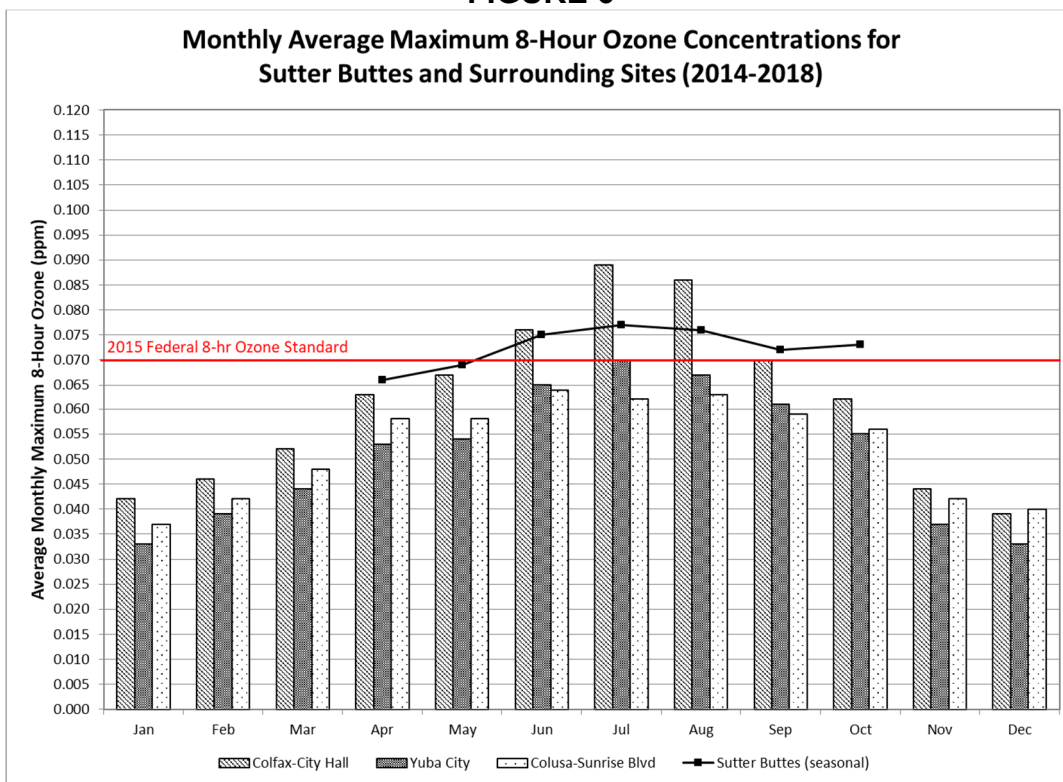


FIGURE 5



Note: The White Cloud monitoring site did not operate in 2016 and 2017 due to site operation issues.

FIGURE 6



Note: The Colfax monitor was included because it is representative of ozone conditions at Sutter Buttes due to its location at a similar altitude and at roughly the same transport distance from the Sacramento metropolitan area.

FIGURE 7

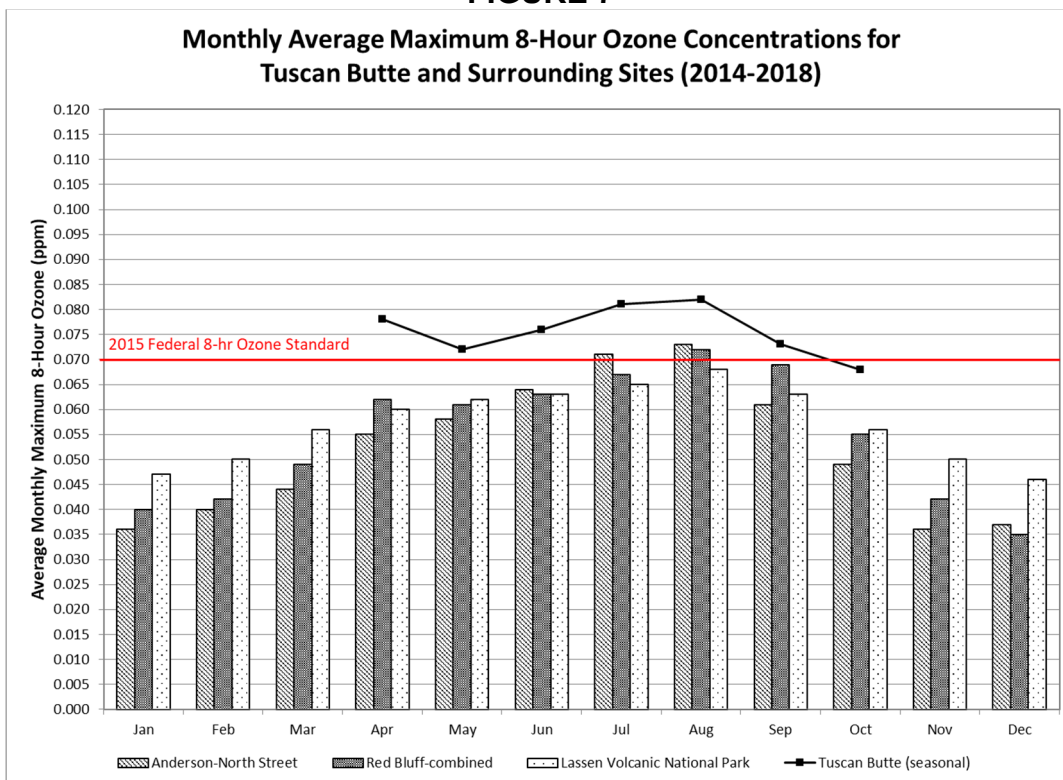


TABLE 2
MONTHLY MAXIMUM 8-HOUR OZONE CONCENTRATIONS AT SEASONAL AND SURROUNDING MONITORING SITES
(Ozone in parts per million)

Month & Year	SITE																		
	Anderson-North Street	Auburn-Atwood Road	Colfax-City Hall	Colusa-Sunrise Blvd	Cool	Echo Summit	Folsom-Natoma Street	Grass Valley-Litton Building	Jerseydale	Lassen Volcanic Natl Park	Placerville-Gold Nugget Way	Red Bluff	Roseville-N Sunrise Ave	Sonora-Barretta Street	Sutter Buttes	Tuscan Butte	White Cloud Mountain	Yosemite Natl Park-Turtleback	Yuba City
	060890007	060610003	060610004	060111002	060170020	060170012	060670012	060570005	060430006	060893003	060170010	061030005 & 061030007	060610006	061090005	061010004	061030004	060570007	060430003	061010003
JAN '14	0.039	0.040	0.045	0.035			0.041	0.057		0.050	0.050	0.043	0.029	0.044				0.054	0.033
FEB '14	0.038	0.048	0.051	0.039			0.049	0.054		0.046	0.054	0.044	0.039	0.053				0.059	0.043
MAR '14	0.041	0.054	0.053	0.047			0.059	0.062		0.067	0.063	0.053	0.054					0.063	0.048
APR '14	0.056	0.063	0.064	0.056			0.070	0.067		0.062	0.063	0.071	0.064	0.066				0.066	0.054
MAY '14	0.063	0.074	0.070	0.061	0.075	0.072	0.078	0.076	0.070	0.068	0.078	0.068	0.075	0.071	0.071	0.075	0.075	0.071	---
JUN '14	0.066	0.081	0.073	0.067	0.083	0.068	0.080	0.083	0.077	0.066	0.090	---	0.083	0.075	0.075	0.076	0.080	0.078	0.071
JUL '14	0.077	0.084	---	0.064	0.087	0.071	0.083	0.085	---	0.060	0.083	0.065	0.086	0.080	0.080	0.086	0.080	0.075	0.088
AUG '14	0.072	0.081	0.076	0.060	0.083	0.068	0.081	0.082	---	0.065	0.076	0.060	0.077	0.074	0.069	0.075	0.078	0.074	0.064
SEP '14	0.064	0.066	0.065	0.058	---	0.065	0.084	0.081	0.084	0.059	0.084	0.062	0.072	0.071	0.071	0.071	0.071	0.084	0.063
OCT '14	0.044	0.068	0.064	0.054	0.075	0.061	0.078	0.074	0.081	0.058	0.074	0.051	0.068	0.071	0.077	0.069	0.073	0.070	0.061
NOV '14	0.036	0.048	0.047	0.046			0.055	0.054		0.048	0.048	0.039	0.049	0.052				0.048	0.040
DEC '14	0.039	0.040	0.041	0.040			0.041	0.048		0.045	0.040	0.036	0.035	0.047				0.051	0.037
JAN '15	0.036	0.040	0.042	0.031			0.035	0.050		0.042	0.039	---	0.029	0.040				0.043	0.032
FEB '15	0.043	0.044	0.044	0.040			0.044	0.052		0.049	0.043	0.043	0.039	0.039				0.043	0.037
MAR '15	0.049	0.056	0.060	0.051			0.059	0.059		0.056	0.054	0.052	0.052	0.053				0.057	0.048
APR '15	0.057	0.069	0.066	0.058			0.063	0.075		0.069	0.075	0.064	0.069	0.063				0.065	0.059
MAY '15	0.063	0.074	0.073	0.057	0.068		0.068	0.073	0.070	0.068	0.070	0.066	0.067	0.074	0.068	0.076	0.067	0.070	0.057
JUN '15	0.073	0.100	0.079	0.070	0.092		0.093	0.089	0.072	0.066	0.090	0.063	0.084	0.078	0.076	0.079	0.074	0.073	0.074
JUL '15	0.073	0.083	0.075	0.062	0.080		0.074	0.081	0.071	0.059	0.082	0.060	0.073	0.075	0.068	0.074	0.072	0.067	0.069
AUG '15	0.068	0.088	0.085	0.063	0.075		0.085	0.092	0.073	0.066	0.080	0.064	0.069	0.077	0.072	0.081	0.078	0.073	0.064
SEP '15	0.061	0.072	0.072	0.056	0.073		0.071	0.072	0.070	0.062	0.073	0.063	0.065	0.070	0.065	0.072	0.076	0.083	0.056
OCT '15	0.056	0.066	0.064	0.059	0.063		0.067	0.068	0.067	0.052	0.071	0.062	0.059	0.074	0.072	0.071	0.059	0.063	---
NOV '15	0.038	0.038	0.038	0.037			0.037	0.048		0.049	0.049	0.039	---	0.044				0.050	0.031
DEC '15	0.037	0.034	0.037	0.040			0.035	0.045		0.047	0.041	0.031	0.035	0.041				0.048	0.033

TABLE 2 Continued

Month & Year	SITE																		
	Anderson-North Street	Auburn-Atwood Road	Colfax-City Hall	Colusa-Sunrise Blvd	Cool	Echo Summit	Folsom-Natoma Street	Grass Valley-Litton Building	Jerseydale	Lassen Volcanic Natl Park	Placerville-Gold Nugget Way	Red Bluff	Roseville-N Sunrise Ave	Sonora-Barretta Street	Sutter Buttes	Tuscan Butte	White Cloud Mountain	Yosemite Natl Park-Turtleback	Yuba City
	060890007	060610003	060610004	060111002	060170020	060170012	060670012	060570005	060430006	060893003	060170010	061030005 & 061030007	060610006	061090005	061010004	061030004	060570007	060430003	061010003
JAN '16	0.038	0.041	0.041	0.040			0.036	0.045		0.047	0.045	0.037	0.039	0.041				0.049	0.036
FEB '16	0.033	0.048	0.048	0.045			0.044	0.055		0.057	0.051	0.040	0.045	0.051				0.048	0.037
MAR '16	0.043	0.047	0.046	0.047			0.045	0.054		0.049	0.055	0.044	0.049	0.057				---	0.039
APR '16	0.060	0.071	0.067	0.062	0.063	0.062	0.068	0.071	0.065	0.058	0.069	0.060	0.071	0.063	0.069	0.078		0.062	0.056
MAY '16	0.056	0.066	0.062	0.064	0.070	---	0.073	0.067	0.063	0.064	0.074	0.059	0.072	0.069	0.079	0.077		0.064	0.053
JUN '16	0.056	0.085	0.080	0.063	0.078	0.066	0.089	0.097	0.075	0.059	0.091	0.060	0.078	0.079	0.077	0.076		0.075	0.057
JUL '16	0.067	0.099	0.085	0.064	0.094	0.070	0.094	0.093	0.072	0.064	0.094	0.073	0.092	0.091	0.079	0.095		0.073	0.064
AUG '16	0.072	0.087	0.081	0.065	0.084	0.072	0.084	0.086	0.081	0.066	0.094	0.072	0.084	0.087	0.084	0.090		0.078	0.065
SEP '16	0.059	0.074	0.068	0.064	0.074	0.064	0.089	0.075	0.089	0.059	0.093	---	0.086	0.077	0.081	0.078		0.074	0.056
OCT '16	0.050	0.062	0.060	0.057	0.059	0.058	0.071	0.074	---	0.054	0.075	0.053	0.065	0.072	0.080	0.074		0.062	0.052
NOV '16	0.029	0.042	0.042	0.042			0.041	0.055		0.056	0.054	0.038	0.045	0.053				0.051	0.036
DEC '16	0.037	0.038	0.037	0.045			0.037	0.045		0.048	0.044	0.038	0.035	0.040				0.044	0.031
JAN '17	0.039	0.043	0.042	0.043			0.044	0.050		0.052		0.041	0.050	0.048				0.061	0.037
FEB '17	0.042	0.048	0.042	0.049			0.045	0.050		0.051	0.052	0.043	0.047	0.051				0.049	0.039
MAR '17	0.043	0.056	0.049	0.051			0.060	0.061		0.056	0.058	0.048	0.046	0.055				0.066	0.044
APR '17	0.046	0.057	0.059	0.053	0.059		0.055	0.064	---	0.059	0.054	0.054	0.052	0.060	0.064			0.065	0.051
MAY '17	---	0.068	0.067	---	0.074	---	0.077	0.087	0.072	0.061	0.074	0.063	0.075	0.071	---			0.070	0.062
JUN '17	0.059	0.079	0.077	---	0.084	0.066	0.075	0.098	0.067	0.058	---	0.067	0.088	0.082	---	---		0.067	0.067
JUL '17	0.065	0.082	---	0.062	0.076	0.072	0.079	0.099	0.075	0.064	0.074	0.066	0.080	0.080		0.072		0.088	0.066
AUG '17	---	0.084	0.078	0.068	0.084	0.057	0.086	0.092	0.083	0.064	0.084	0.078	0.086	0.083		0.077		0.070	0.071
SEP '17	---	0.082	0.077	0.062	0.075	0.066	0.084	0.088	0.078	0.071	0.082	0.082	0.083	0.077		0.075		0.073	0.073
OCT '17	---	0.070	0.065	0.055	0.070	0.057	0.069	0.090	0.066	0.066	0.076	0.056	0.058	0.064		0.065		0.056	0.053
NOV '17	0.040	0.043	0.044	0.041			0.041	0.048		0.045	0.046	0.046	0.036	0.046				0.051	0.036
DEC '17	0.038	0.040	0.044	0.038			0.037	0.053		0.047	0.043	---	0.030	0.042				0.048	0.033

TABLE 2 Continued

Month & Year	SITE																		
	Anderson-North Street	Auburn-Atwood Road	Colfax-City Hall	Colusa-Sunrise Blvd	Cool	Echo Summit	Folsom-Natoma Street	Grass Valley-Litton Building	Jerseydale	Lassen Volcanic Natl Park	Placerville-Gold Nugget Way	Red Bluff	Roseville-N Sunrise Ave	Sonora-Barretta Street	Sutter Buttes	Tuscan Butte	White Cloud Mountain	Yosemite Natl Park-Turtleback	Yuba City
	060890007	060610003	060610004	060111002	060170020	060170012	060670012	060570005	060430006	060893003	060170010	061030005 & 061030007	060610006	061090005	061010004	061030004	060570007	060430003	061010003
JAN '18	0.028	0.038	0.043	0.038			0.039	0.057		0.048	0.040		0.035	0.039				0.047	0.030
FEB '18	0.044	0.047	0.045	0.041			0.047	0.060		0.048	0.047		0.043	0.045				0.049	0.040
MAR '18	0.045	0.051	0.053	0.048			0.057	0.055		0.053	0.055	0.048	0.052	0.044				0.052	0.042
APR '18	0.059	0.064	0.061	0.061	0.067	---	0.063	0.058	0.057	0.055	0.064	0.061	0.056	0.054	0.065	---		0.058	0.049
MAY '18	0.051	0.067	0.066	0.050	0.063	0.069	0.057	0.061	0.062	0.052	0.058	0.053	0.053	0.060	0.059	0.060		0.062	0.044
JUN '18	0.067	0.079	0.075	0.058	0.075	0.069	0.073	0.072	0.073	0.066	0.070	0.065	0.064	0.067	0.073	0.076		0.069	0.060
JUL '18	0.073	0.107	0.108	0.062	0.092	0.080	0.079	0.101	0.079	0.081	0.088	0.073	0.083	0.084	0.083	0.081		0.092	0.066
AUG '18	0.081	0.115	0.114	0.062	0.108	0.078	0.093	0.101	0.081	0.083	0.099	0.087	0.082	0.087	0.082	0.087		0.087	0.071
SEP '18	---	0.083	0.072	0.058	0.076	0.067	0.081	0.077	0.084	0.064	0.089	0.070	0.078	0.077	0.074	0.071		0.075	0.061
OCT '18	0.046	0.068	0.057	0.055	0.058	0.050	0.071	0.060	0.063	0.054	0.066	0.057	0.064	0.060	0.065	0.064		0.057	0.054
NOV '18	0.041	0.058	0.053	0.046			0.057	0.062		0.052	0.058	0.049	0.051	0.061				0.057	0.043
DEC '18	0.035	0.038	0.038	0.037			0.039	0.046		0.047	0.042	0.036	0.032	0.037				0.049	0.031

- Notes:
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 - 2 Data for the Red Bluff-Oak Street and Red Bluff-1834 Walnut Street monitoring sites were merged to make a continuous Red Bluff record for the 5-year period.
 - 3 The Echo Summit monitoring site did not operate in 2015 due to site lease issues.
 - 4 The White Cloud Mountain monitoring site did not operate from 2016 through 2018 due to site operational issues.
 - 5 2017 data from May 18 to October 31 for Sutter Buttes has been invalidated due to poor quality assurance results.
 - 6 2017 data from April 6 to June 20 for Tuscan Butte has been invalidated due to poor quality assurance results.

TABLE 3
ANNUAL 4th HIGH 8-HOUR OZONE CONCENTRATIONS AT SEASONAL AND SURROUNDING MONITORING SITES
(Ozone in parts per million; seasonal sites highlighted)

Site Name	2014		2015		2016		2017		2018	
	4 th High	Date	4 th High	Date	4 th High	Date	4 th High	Date	4 th High	Date
Anderson-North Street	0.071	7/1/2014	0.068	8/18/2015	0.067	8/13/2016	0.061	8/19/2017	0.076	8/8/2018
Auburn-Atwood Road	0.081	6/5/2014	0.085	6/20/2015	0.085	6/29/2016	0.082	9/2/2017	0.098	8/9/2018
Colfax-City Hall	0.073	6/5/2014	0.075	6/20/2015	0.081	8/20/2016	0.077	8/1/2017	0.097	8/9/2018
Colusa-Sunrise Blvd	0.061	5/31/2014	0.064	6/8/2015	0.065	8/18/2016	0.062	8/19/2017	0.061	8/25/2018
Cool	0.083	8/27/2014	0.080	7/30/2015	0.084	8/16/2016	0.078	8/17/2017	0.092	8/1/2018
Echo Summit	0.068	5/27/2014			0.070	7/30/2016	0.066	9/2/2017	0.075	8/25/2018
Folsom-Natoma Street	0.081	8/27/2014	0.081	6/16/2015	0.088	7/27/2016	0.079	7/19/2017	0.079	7/18/2018
Grass Valley-Litton Building	0.081	7/14/2014	0.084	8/19/2015	0.086	8/16/2016	0.090	6/24/2017	0.095	8/8/2018
Jerseydale	0.077	6/2/2014	0.071	7/2/2015	0.077	8/19/2016	0.075	7/24/2017	0.079	7/25/2018
Lassen Volcanic Natl Park	0.065	5/2/2014	0.066	6/11/2015	0.064	8/14/2016	0.064	7/24/2017	0.077	8/10/2018
Placerville-Gold Nugget Way	0.082	6/6/2014	0.080	7/1/2015	0.093	9/26/2016	0.078	9/3/2017	0.095	8/8/2018
Red Bluff	0.068	5/31/2014	0.063	5/1/2015	0.070	8/20/2016	0.073	8/1/2017	0.080	8/9/2018
Roseville-N Sunrise Ave	0.083	7/14/2014	0.073	7/30/2015	0.084	8/13/2016	0.080	7/19/2017	0.080	8/9/2018
Sonora-Barretta Street	0.075	6/4/2014	0.076	6/30/2015	0.088	7/28/2016	0.077	7/24/2017	0.084	8/5/2018
Sutter Buttes	0.075	6/6/2014	0.072	8/18/2015	0.080	8/17/2016			0.080	7/28/2018
Tuscan Butte	0.076	6/1/2014	0.076	6/24/2015	0.087	8/17/2016			0.082	8/25/2018
White Cloud Mountain	0.078	8/27/2014	0.072	7/16/2015						
Yosemite Natl Park-Turtleback	0.077	9/13/2014	0.073	8/18/2015	0.074	8/11/2016	0.078	7/24/2017	0.085	7/25/2018
Yuba City-Almond Street	0.069	7/7/2014	0.064	8/18/2015	0.063	8/13/2016	0.067	6/23/2017	0.065	7/31/2018

Notes:

1 Surrounding monitors used for comparison with more than one seasonal site are only listed once.

2 Data for the Red Bluff-Oak Street and Red Bluff-1834 Walnut Street monitoring sites were merged to make a continuous Red Bluff record for the 5-year period.

3 The Echo Summit monitoring site did not operate in 2015 due to site lease issues.

4 The White Cloud Mountain monitoring site did not operate from 2016 through 2018 due to site operational issues.

5 2017 data from May 18 to October 31 for Sutter Buttes has been invalidated due to poor quality assurance results.

6 2017 data from April 6 to June 20 for Tuscan Butte has been invalidated due to poor quality assurance results.

TABLE 4
NUMBER OF DAYS WITH MAXIMUM 8-HOUR OZONE CONCENTRATION >0.070 PPM
(April-October ozone season columns highlighted in yellow; seasonal site rows denoted by gray)

Month & Year	SITE																		
	Anderson-North Street	Auburn-Atwood Road	Colfax-City Hall	Colusa-Sunrise Blvd	Cool	Echo Summit	Folsom-Natoma Street	Grass Valley-Litton Building	Jerseydale	Lassen Volcanic Natl Park	Placerville-Gold Nugget Way	Red Bluff	Roseville-N Sunrise Ave	Sonora-Barretta Street	Sutter Buttes	Tuscan Butte	White Cloud Mountain	Yosemite Natl Park-Turtleback	Yuba City
	060890007	060610003	060610004	060111002	060170020	060170012	060670012	060570005	060430006	060893003	060170010	061030005 & 061030007	060610006	061090005	061010004	061030004	060570007	060430003	061010003
JAN '14																			
FEB '14																			
MAR '14																			
APR '14												1							
MAY '14		1			2	1	4	4			4		4	1	1	2	2	1	
JUN '14		4	3		6		5	5	8		11		4	7	1	4	5	5	1
JUL '14	3	6	1		5	1	7	6	1		6		7	5	3	4	3	3	2
AUG '14	1	4	2		10		6	4	2		5		3	1		4	4	3	
SEP '14					5		7	7	3		3		1	1	1	1	1	3	
OCT '14					5		5	2	3		3			1	1		1		
NOV '14																			
DEC '14																			
JAN '15																			
FEB '15																			
MAR '15																			
APR '15								1			1								
MAY '15		1	2					3						1		2			
JUN '15	1	6	4		6		6	13	2		7		4	5	4	6	2	2	1
JUL '15	1	4	3		5		3	4	1		4		2	2		4	1		
AUG '15		3	2		1		1	4	1		2			2	2	2	1	1	
SEP '15		1	1		1		1	1			4					1	1	2	
OCT '15											1			1	1	1			
NOV '15																			
DEC '15																			

TABLE 4 Continued

Month & Year	SITE																		
	Anderson-North Street	Auburn-Atwood Road	Colfax-City Hall	Colusa-Sunrise Blvd	Cool	Echo Summit	Folsom-Natoma Street	Grass Valley-Litton Building	Jerseydale	Lassen Volcanic Natl Park	Placerville-Gold Nugget Way	Red Bluff	Roseville-N Sunrise Ave	Sonora-Barretta Street	Sutter Buttes	Tuscan Butte	White Cloud Mountain	Yosemite Natl Park-Turtleback	Yuba City
	060890007	060610003	060610004	060111002	060170020	060170012	060670012	060570005	060430006	060893003	060170010	061030005 & 061030007	060610006	061090005	061010004	061030004	060570007	060430003	061010003
JAN '16																			
FEB '16																			
MAR '16																			
APR '16		1						2					1			2			
MAY '16							1				1		1		1	2			
JUN '16		3	2		1		3	4	1		5		3	13	4	3		1	
JUL '16		8	6		7		7	12	1		8	2	5	15	8	10		3	
AUG '16	2	10	6		8	2	6	15	7		15	1	4	12	11	19		6	
SEP '16		5			3		5	5	7		10		6	4	5	4		1	
OCT '16							1	1			2			1	1	2			
NOV '16																			
DEC '16																			
JAN '17																			
FEB '17																			
MAR '17																			
APR '17					2		2	4	1		3		1	2					
MAY '17		4	1		8		3	14			2		2	6					
JUN '17		5	3		8	1	3	24	5		4		1	7		1		8	
JUL '17	1	16	6		7		6	20	2		5	2	3	7		3			1
AUG '17		3	4		3		3	7	2	1	3	2	2	3		4		3	1
SEP '17								9			1								
OCT '17																			
NOV '17																			
DEC '17																			

TABLE 4 Continued

Month & Year	SITE																		
	Anderson-North Street	Auburn-Atwood Road	Colfax-City Hall	Colusa-Sunrise Blvd	Cool	Echo Summit	Folsom-Natoma Street	Grass Valley-Litton Building	Jerseydale	Lassen Volcanic Natl Park	Placerville-Gold Nugget Way	Red Bluff	Roseville-N Sunrise Ave	Sonora-Barretta Street	Sutter Buttes	Tuscan Butte	White Cloud Mountain	Yosemite Natl Park-Turtleback	Yuba City
	060890007	060610003	060610004	060111002	060170020	060170012	060670012	060570005	060430006	060893003	060170010	061030005 & 061030007	060610006	061090005	061010004	061030004	060570007	060430003	061010003
JAN '18																			
FEB '18																			
MAR '18																			
APR '18																			
MAY '18																			
JUN '18		3	3		2		1	1	1						2	2			
JUL '18	2	11	9		9	4	7	7	2	4	7	1	4	7	4	2		15	
AUG '18	7	16	15		12	6	5	10	4	9	13	7	5	11	9	8		8	1
SEP '18		5	3		3		4	4	4		8		2	3	3	1		2	
OCT '18						1													
NOV '18																			
DEC '18																			

- Notes:
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 - 2 Data for the Red Bluff-Oak Street and Red Bluff-1834 Walnut Street monitoring sites were merged to make a continuous Red Bluff record for the 5-year period.
 - 3 The Echo Summit monitoring site did not operate in 2015 due to site lease issues.
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 - 5 2017 data from May 18 to October 31 for Sutter Buttes has been invalidated due to poor quality assurance results.
 - 6 2017 data from April 6 to June 20 for Tuscan Butte has been invalidated due to poor quality assurance results.

TABLE 5
NUMBER OF DAYS WITH MAXIMUM 8-HOUR OZONE CONCENTRATION >0.054 PPM
(April-October ozone season columns highlighted in yellow; seasonal site rows denoted by gray)

Month & Year	SITE																		
	Anderson-North Street	Auburn-Atwood Road	Colfax-City Hall	Colusa-Sunrise Blvd	Cool	Echo Summit	Folsom-Natoma Street	Grass Valley-Litton Building	Jerseydale	Lassen Volcanic Natl Park	Placerville-Gold Nugget Way	Red Bluff	Roseville-N Sunrise Ave	Sonora-Barretta Street	Sutter Buttes	Tuscan Butte	White Cloud Mountain	Yosemite Natl Park-Turtleback	Yuba City
	060890007	060610003	060610004	060111002	060170020	060170012	060670012	060570005	060430006	060893003	060170010	061030005 & 061030007	060610006	061090005	061010004	061030004	060570007	060430003	061010003
JAN '14								1											
FEB '14																		1	
MAR '14							2	3		1	3							6	
APR '14	2	4	7	1			11	12		8	10	11	4	12				14	
MAY '14	6	11	13	6	14	15	14	13	15	8	16	13	10	19	8	14	14	16	5
JUN '14	4	18	16	6	18	13	14	21	25	3	19	6	16	22	14	17	21	22	11
JUL '14	17	24	16	5	26	5	20	27	11	5	22	13	21	22	16	26	20	20	12
AUG '14	13	21	17	4	24	16	21	27	15	9	21	8	17	20	19	23	24	25	9
SEP '14	3	10	11	1	14	10	16	17	17	4	10	8	12	13	8	15	11	19	5
OCT '14		10	6		11	6	11	15	18	3	11		8	12	12	6	12	13	4
NOV '14							1												
DEC '14																			
JAN '15																			
FEB '15																			
MAR '15		1	2				3	5		1								1	
APR '15	2	9	9	1			6	16		5	10	5	4	12				11	1
MAY '15	9	16	16	3	14		8	21	13	11	16	10	6	14	9	22	11	14	3
JUN '15	17	26	25	11	26		18	27	25	12	24	8	16	24	21	24	21	24	13
JUL '15	10	13	15	6	14		12	19	16	4	15	5	10	13	11	15	10	12	6
AUG '15	11	16	19	5	13		9	21	16	8	19	5	6	14	12	19	13	16	4
SEP '15	2	10	10	2	9		11	12	16	2	16	9	6	12	12	14	14	17	1
OCT '15	2	10	8	3	9		7	16	10		19	6	5	11	12	12	4	10	1
NOV '15																			
DEC '15																			

TABLE 5 Continued

Month & Year	SITE																		
	Anderson-North Street	Auburn-Atwood Road	Colfax-City Hall	Colusa-Sunrise Blvd	Cool	Echo Summit	Folsom-Natoma Street	Grass Valley-Litton Building	Jerseydale	Lassen Volcanic Natl Park	Placerville-Gold Nugget Way	Red Bluff	Roseville-N Sunrise Ave	Sonora-Barretta Street	Sutter Buttes	Tuscan Butte	White Cloud Mountain	Yosemite Natl Park-Turtleback	Yuba City
	060890007	060610003	060610004	060111002	060170020	060170012	060670012	060570005	060430006	060893003	060170010	061030005 & 061030007	060610006	061090005	061010004	061030004	060570007	060430003	061010003
JAN '16																			
FEB '16								1		1									
MAR '16											1			1					
APR '16	1	4	5	5	3	10	3	8	4	1	8	2	4	8	11	15		4	1
MAY '16	1	8	4	4	8	6	7	9	9	2	13	2	6	13	13	15		6	
JUN '16	1	17	13	7	15	14	13	22	18	2	23	4	14	26	20	25		13	1
JUL '16	10	21	22	8	18	19	15	24	19	4	21	11	14	26	18	22		21	6
AUG '16	19	28	29	17	27	27	23	30	30	15	29	20	22	27	29	31		29	6
SEP '16	1	15	13	7	15	8	17	20	27	1	21	1	14	22	18	20		15	3
OCT '16		2	4	1	2	3	2	6	4		8		2	8	6	6		2	
NOV '16								1		1									
DEC '16																			
JAN '17																		1	
FEB '17																			
MAR '17		1					1	5		2	3			1				2	
APR '17		2	4		3		1	12		3				10	14			7	
MAY '17	1	10	9	2	13		9	19	9	6	10	5	6	15	5			8	1
JUN '17	2	13	13		15	5	12	21	16	2	14	8	12	20	3	7		14	5
JUL '17	12	29	14	10	30	13	28	31	29	13	29	22	26	29		27		25	14
AUG '17	12	25	25	12	22	4	22	28	22	7	24	25	22	30		24		20	13
SEP '17		15	14	6	15	5	14	20	17	7	15	9	12	17		16		15	7
OCT '17		13	9	1	7	3	11	19	19	2	14	1	4	10		7		5	
NOV '17																			
DEC '17																			

TABLE 5 Continued

Month & Year	SITE																		
	Anderson- North Street	Auburn- Atwood Road	Colfax -City Hall	Colusa- Sunrise Blvd	Cool	Echo Summit	Folsom- Natoma Street	Grass Valley-Litton Building	Jerseydale	Lassen Volcanic Natl Park	Placerville- Gold Nugget Way	Red Bluff	Roseville-N Sunrise Ave	Sonora- Barretta Street	Sutter Buttes	Tuscan Butte	White Cloud Mountain	Yosemite Natl Park- Turtleback	Yuba City
	060890007	060610003	060610004	060111002	060170020	060170012	060670012	060570005	060430006	060893003	060170010	061030005 & 061030007	060610006	061090005	061010004	061030004	060570007	060430003	061010003
JAN '18								2											
FEB '18								3											
MAR '18							1	1			1								
APR '18	2	4	6	2	3	5	2	2	4	1	4	2	1		7	4		3	
MAY '18		5	4		5	7	3	3	7		3			2	6	11		6	
JUN '18	7	23	21	1	20	14	14	18	23	8	18	11	5	20	20	22		21	3
JUL '18	13	27	28	3	27	20	23	19	22	11	26	16	16	21	18	20		26	10
AUG '18	21	30	30	4	28	24	22	26	27	23	27	22	21	26	24	22		28	11
SEP '18	7	22	13	2	17	15	20	20	19	9	25	16	12	17	12	15		18	2
OCT '18		6	4					5										5	
NOV '18		1						2										4	
DEC '18																			

- Notes:
- 1 Surrounding monitors used for comparison with more than one seasonal site are only listed once.
 - 2 Data for the Red Bluff-Oak Street and Red Bluff-1834 Walnut Street monitoring sites were merged to make a continuous Red Bluff record for the 5-year period.
 - 3 The Echo Summit monitoring site did not operate in 2015 due to site lease issues.
 - 4 The White Cloud Mountain monitoring site did not operate from 2016 through 2018 due to site operational issues.
 - 5 2017 data from May 18 to October 31 for Sutter Buttes has been invalidated due to poor quality assurance results.
 - 6 2017 data from April 6 to June 20 for Tuscan Butte has been invalidated due to poor quality assurance results.

FIGURE 8
PHOTOS OF AREA SURROUNDING THE SUTTER BUTTES OZONE MONITORING SITE



Sutter Buttes: Looking north from probe.



Sutter Buttes: Looking east from probe.



Sutter Buttes: Looking south from probe.
(from 2016 site audit)



Sutter Buttes: Looking west from probe.

FIGURE 9
PHOTOS OF AREA SURROUNDING THE TUSCAN BUTTE OZONE MONITORING SITE



Tuscan Butte: Looking north from probe.



Tuscan Butte: Looking east from probe.



Tuscan Butte: Looking south from probe.
(from 2016 site audit)



Tuscan Butte: Looking west from probe.

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Appendix C

Updated Waiver Request
for 1-in-6 Day PM_{2.5} Monitoring

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UPDATED WAIVER REQUEST FOR 1-IN-6 DAY PM_{2.5} MONITORING IN 2019

The required number of PM_{2.5} monitoring sites and their sampling schedules are based in part on the population of the Metropolitan Statistical Area (MSA) and on the magnitude of measured concentrations (Tables 1 and 2). 40 Code of Federal Regulations (CFR) Part 58.12(d)(1) requires manual PM_{2.5} monitors to operate on a 1-in-3 day schedule (minimally), unless a waiver for an alternate schedule has been approved. For sites with a collocated continuous monitor, U.S. EPA may approve a reduced 1-in-6 day schedule based on an assessment of factors including historical data, location of current design site, and regulatory needs.

During 2018, three PM_{2.5} monitoring sites included in this CARB 2019 Annual Network Report have manual PM_{2.5} monitors operating on a 1-in-6 day schedule without a collocated continuous monitor (reporting data to AQS) and two PM_{2.5} monitoring sites have manual PM_{2.5} monitors operating on a 1-in-6 day schedule in parallel with a continuous monitor (Tables 3 and 4).

Sites with a Collocated Monitor

PM_{2.5} concentrations at the two sites with a collocated continuous monitor are historically well below the federal PM_{2.5} standards. U.S. EPA approved 1-in-6 day monitoring for these sites on November 26, 2018.

As shown in Table 3, 2018 PM_{2.5} annual design values at the Colusa and Roseville sites are 8.5 and 8.7 µg/m³, respectively, with PM_{2.5} 24-hour design values of 36 and 31 µg/m³. Although the percent of these concentrations to the standards increased in 2018 (Table 4), both sites have historically low design values (and percentages). Both monitors were impacted by wildfires in 2018. These impacts were enough to raise the PM_{2.5} 24-hour design values to the point of just exceeding the standard at Colusa, while Roseville remained below.

Colusa operates outside an MSA while the Roseville site is part of the Sacramento-Roseville-Arden Arcade MSA. As noted in this Network Plan, the Sacramento-Roseville-Arden Arcade MSA has a minimum monitoring requirement of three (3) sites but operates seven (7). The current PM_{2.5} design value sites for the MSA are Del Paso (AQS ID 06-067-0006), in Sacramento County, and Woodland (AQS ID 06-113-1003), in Yolo County.

Sites without a Collocated Monitor

In addition to the two sites described above, CARB's annual network report includes three additional sites with a manual PM_{2.5} monitor operating on a 1-in-6 day schedule (Tables 3 and 4). CARB is requesting a waiver of the 1-in-3 day monitoring requirements for these sites based on historically low PM_{2.5} concentrations and regulatory needs.

As shown in Table 3, 2017 valid annual design values at these sites range from 7.4 to 9.6 $\mu\text{g}/\text{m}^3$, and their 24-hour design values range from 49 to 55 $\mu\text{g}/\text{m}^3$. Although current design values at these sites are high, this is the result of extended impacts from wildfires in 2018. Historically, the percent of these concentrations to the standards are low (Table 4) and are consistent with the historically low design values at the sites.

The Lakeport site operates in Lake County, outside an MSA. The $\text{PM}_{2.5}$ design value site for the local air district is the Lakeport monitor which recently moved from Lakeport Blvd (AQS ID 06-033-3001) to S. Main Street (AQS ID 06-033-3002). The design values for both of these sites are not considered valid, with 2017 an incomplete year; design values were therefore calculated from the combined data records of both sites. The Lakeport-S. Main monitor was heavily impacted by smoke from wildfires in 2017 and 2018. Lakeport is not part of any $\text{PM}_{2.5}$ nonattainment areas for either of the $\text{PM}_{2.5}$ National Ambient Air Quality Standards (NAAQS).

The Redding site, in Shasta County, is part of the Redding MSA. As noted in this Network Plan, the Redding MSA has a minimum monitoring requirement of one (1) monitor. This site was heavily impacted by wildfires in 2018. The current design value site for the Redding MSA is the Redding monitor (AQS ID 06-089-0004). The Redding MSA does not contain any areas officially designated in nonattainment of either of the $\text{PM}_{2.5}$ NAAQS.

The Woodland site, in Yolo County, is part of the Sacramento-Roseville-Arden Arcade MSA. A non-FEM BAM is located at the site, but does not currently report to AQS; CARB is working with the district to submit this data in the future. As noted in this Network Plan, the Sacramento-Roseville-Arden Arcade MSA has a minimum monitoring requirement of three (3) sites but operates seven (7). The current design value sites for the MSA are Del Paso (AQS ID 06-067-0006), in Sacramento County, and the Woodland site (AQS ID 06-113-1003), in Yolo County. The Woodland site was heavily impacted by smoke from wildfires in 2017 and 2018, but concentrations are, historically, below the NAAQS. The Sacramento $\text{PM}_{2.5}$ 24-hour NAAQS nonattainment area, which includes the Woodland monitoring site, was given a Clean Data Determination effective August 14, 2013. The MSA does not contain any areas in nonattainment for the $\text{PM}_{2.5}$ annual NAAQS.

While not required under 40 CFR Part 58 Appendix D due to population and particulate matter concentrations, CARB chose to deploy the sites which operate without a collocated monitor to improve spatial coverage throughout California. These sites also collect data for comparison to the State $\text{PM}_{2.5}$ Standard. These data, although collected on a 1-in-6 day schedule, accurately represent the air quality in these sparsely populated, low concentration areas.

Table 1. Minimum Number of Required PM_{2.5} Monitors*

MSA Population	Most recent 3-year design value > or = 85% of any PM _{2.5} NAAQS	Most recent 3-year design value < 85% of any PM _{2.5} NAAQS
> 1,000,000	3	2
500,000 – 1,000,000	2	1
50,000 – 500,000	1	0

*Table D-5 of Appendix D to Part 58 – PM_{2.5} Minimum Monitoring Requirements

Table 2. Populations Represented by 1-in-6 Day PM_{2.5} Sites

County	Site	AQS ID	MSA	2010 Population (2018 estimate)*
Colusa	Colusa	06-011-1002	Outside MSA	County: 21,419 (21,805)
Lake	Lakeport-S.Main	06-033-3002	Outside MSA	County: 64,665 (64,246)
Placer	Roseville	06-061-0006	Sacramento-Roseville-Arden Arcade	MSA: 2,149,127 (2,345,210) County: 348,494 (386,166)
Shasta	Redding	06-089-0004	Redding	MSA and County: 177,223 (180,040)
Yolo	Woodland	06-113-1003	Sacramento-Roseville-Arden Arcade	MSA: 2,149,127 (2,345,210) County: 200,850 (219,116)

*2010 and 2018 county populations from U.S. Census Quickfacts; MSA populations from CARB 2019 Annual Network Plan.

Table 3: 3-Year Design Values at Waiver-Requested PM_{2.5} Sites

Site	AQS ID	Collocated?	Annual DV (µg/m ³)					24-Hr DV (µg/m ³)				
			2014	2015	2016	2017	2018	2014	2015	2016	2017	2018
Colusa	06-011-1002	Yes	7.2	7.6	7.3	7.6	8.5	21	22	19	24	36
Roseville	06-061-0006	Yes	7.3	7.9	7.6	7.4	8.7	18	20	20	19	31
Lakeport-S.Main*	06-033-3002	No	4.0	4.0	3.6	4.3*	7.4*	12	10	10	19*	55*
Redding	06-089-0004	No	5.7	6.2	6.0	6.8	9.6	16	17	15	21	49
Woodland	06-113-1003	No**	6.6	7.0	6.9	7.5	9.3	16	19	16	25	50

*Combined DV with previous site at Lakeport-Lakeport (06-033-3001)

**Woodland site has a non-FEM BAM that does not report to AQS.

Table 4. Percent of Design Value to Standard at Waiver-Requested PM_{2.5} Sites

Site	AQS ID	Collocated?	Percent of Annual DV (%)					Percent of 24-Hr DV (%)				
			2014	2015	2016	2017	2018	2014	2015	2016	2017	2018
Colusa	06-011-1002	Yes	60	63	61	63	71	60	63	54	69	103
Roseville	06-061-0006	Yes	61	65	63	62	73	51	57	57	54	89
Lakeport-S.Main*	06-033-3002	No	33	33	30	36	62	34	29	28	54	157
Redding	06-089-0004	No	48	52	50	57	80	46	49	43	60	140
Woodland	06-113-1003	No**	55	58	58	63	78	46	54	46	71	143

*Combined DV with previous site at Lakeport-Lakeport (06-033-3001)

**Woodland site has a non-FEM BAM that does not report to AQS.

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Appendix D

Supporting Documentation for Site Changes

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

JAN 26 2019

Mr. Mallory Ham
Manager, Monitoring Division
Ventura County Air Pollution Control District
669 County Square Drive
Ventura, California 93003

Dear Mr. Ham:

This letter transmits the U.S. Environmental Protection Agency's (EPA's) formal approval of Ventura County Air Pollution Control District's (VCAPCD's) December 13, 2018 letter requesting changes to its Photochemical Assessment Monitoring Stations (PAMS) network. Specifically, the EPA approves the discontinuation of PAMS volatile organic compound (VOC) parameters at the Simi Valley (AQS ID: 06-111-2002) and El Rio (AQS ID: 06-111-3001) monitoring sites. EPA acknowledges that the PAMS requirements were revised when EPA promulgated the 2015 ozone National Ambient Air Quality Standards on October 1, 2015, and we support VCAPCD's efforts to assess which PAMS measurements are currently necessary and appropriate. We also support VCAPCD's collaboration with the California Air Resources Board (CARB) to draft an Enhanced Monitoring Plan that will evaluate PAMS monitoring needs in Ventura County in the future.

If you have any questions, please feel free to contact me at (415) 947-4134 or Randy Chang at (415) 947-4180.

Sincerely,

A handwritten signature in blue ink, appearing to read "Gwen Yoshimura".

Gwen Yoshimura, Manager
Air Quality Analysis Office

cc (via email): Michael Miguel (CARB)
Jin Xu (CARB)
Aman Bains (CARB)
Kathy Gill (CARB)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

JUN 27 2018

Mr. Glen E. Stephens, P.E.
Air Pollution Control Officer
Eastern Kern Air Pollution Control District
2700 "M" Street, Suite 302
Bakersfield, CA 93301

Dear Mr. Stephens:

This letter provides the U.S. Environmental Protection Agency's (EPA's) review and approval for the Eastern Kern Air Pollution Control District's (District's) relocation of the PM_{2.5} and PM₁₀ State/Local Air Monitoring Station (SLAMS) monitors at the Ridgecrest site (AQS ID: 06-029-0015).

On April 5, 2018, the District sent a letter to EPA with a description of this network change. Per 40 CFR 58.14, monitoring agencies are required to obtain EPA approval for the relocation of SLAMS monitors. The Ridgecrest PM_{2.5} and PM₁₀ monitors are not eligible for removal under 40 CFR 58.14(c)(1) - (c)(5). These monitor relocations were reviewed under 40 CFR 58.14(c)(6), which describes the relocation requirements if a SLAMS monitor is not eligible for removal under the criteria in 40 CFR 58.14(c)(1) through (c)(5), and states that "[a] SLAMS monitor ... may be moved to a nearby location with the same scale of representation if logistical problems beyond the State's control make it impossible to continue operation at its current site."

The Ridgecrest site is located near the City of Ridgecrest administration building complex and has insufficient power for planned equipment upgrades. To accommodate power needs, the District researched relocation sites. The proposed location, the northeast corner of Sydnor Avenue and Primavera Street in Ridgecrest, has sufficient power to operate the upgraded equipment. The proposed site is located approximately 3 miles away from the current site, and both are in an area characterized by residential and commercial land uses as well as open desert.

As described in its April 5, 2018 letter, the District conducted parallel PM_{2.5} monitoring at the current and proposed relocation sites from early November 2017 through the middle of February 2018 and parallel PM₁₀ monitoring from early November 2017 through the end of December 2017. The proposed relocation site operated continuous instruments with daily sampling, while the current site operated on a 1-in-6 day schedule, resulting in ten matching days for PM_{2.5} and seven matching days for PM₁₀ during the parallel monitoring study. Of the ten matching PM_{2.5} days, the current and proposed relocation sites measured reasonably similar concentrations. Of the two days with the greatest differences in concentration, the proposed relocation site measured the higher concentrations. With respect to PM₁₀, of the seven matching days, six were reasonably similar in concentrations. Of those six, the matching day with the greatest difference in

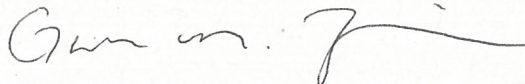
concentration measured higher at the relocation site. The one remaining matching day measured much higher at the current site. However, concentrations at both sites on that day were well below the standard ($48 \mu\text{g}/\text{m}^3$ at the current site, $21 \mu\text{g}/\text{m}^3$ at the relocation site). Therefore, the relocation site is expected to measure similar PM_{10} and $\text{PM}_{2.5}$ concentrations from similar sources due to the consistency in land use and proximity to sources.

Based on the assessment of the scale of representation and the parallel monitoring study at both locations, EPA has determined that District's request meets the requirement that the replacement site is at a nearby location with the same scale of representation and approves relocation of the Ridgecrest $\text{PM}_{2.5}$ and PM_{10} SLAMS monitors to the proposed site. This approval assumes that the new site will meet all 40 CFR 58 requirements, including the siting requirements specified in Appendix E. Please work with EPA to ensure that the new site meets all relevant requirements.

As this is a relocation, the data from the old and new sites will be combined to form one continuous data record for design value calculations. Please note this in the AQS comment field for both the old and the new AQS site. Also, please attach this letter and include the relevant monitor and site information in your next Annual Monitoring Network Plan.

If you have any questions, please feel free to contact me at (415) 947-4134 or Jennifer Williams of my staff at (213) 244-1824.

Sincerely,



Gwen Yoshimura, Manager
Air Quality Analysis Office
Air Division

Cc (via email):

Ravi Ramalingam, ARB
Webster Tasat, ARB
Sunghoon Yoon, ARB
Andrea McStocker, ARB

May 17, 2019

Gwen Yoshimura
Manager, Air Quality Analysis Office
U.S. EPA Region 9 (AIR-7)
75 Hawthorne Street
San Francisco, CA 94105

Dear Ms. Yoshimura:

The Placer County Air Pollution Control District (PCAPCD) is requesting formal approval under the case-by-case provision of 40 CFR 58.14 (c) from the United States Environmental Protection Agency (U.S. EPA) for PCAPCD's Lincoln monitoring station's modification. The modification includes discontinuation of an old site and operation of a new site within the City of Lincoln. The reason for this modification is that logistical problems beyond PCAPCD's control made it impossible to continue operation at the old site.

The old Lincoln monitoring site was located at 1445 1st Street, Lincoln CA (AQS site ID: 06-061-2002) within the Sacramento Federal Ozone Nonattainment Area (SFONA). The site was setup inside an unoccupied office at the Placer Cemetery District (PCD) and housed a FEM analyzer (API-400) for ozone and a non-FEM monitor (BAM1020) for PM_{2.5}. The air monitoring data for ozone and PM_{2.5} had been collected and reported since October 2012. In October 2017, PCAPCD closed the site after being informed by PCD of its office demolition project which required the equipment to be removed, and that the equipment would not be able to be put back. Therefore, the Lincoln 1445 1st Street site was closed.

Since the old Lincoln site was located in the SFONA, PCAPCD conducted an analysis to demonstrate that the closure of the old site would not compromise data collection for implementation of the federal ozone ambient air quality standard in the SFONA. Figure 1 below shows the 4th highest 8-hour ozone averages from the old Lincoln site, along with the peak site in the SFONA between 2013 and 2017, which was during the operation period of the old Lincoln site.

Figure 1 Trend of 4th 8-hour Ozone Averages between 2013 and 2017

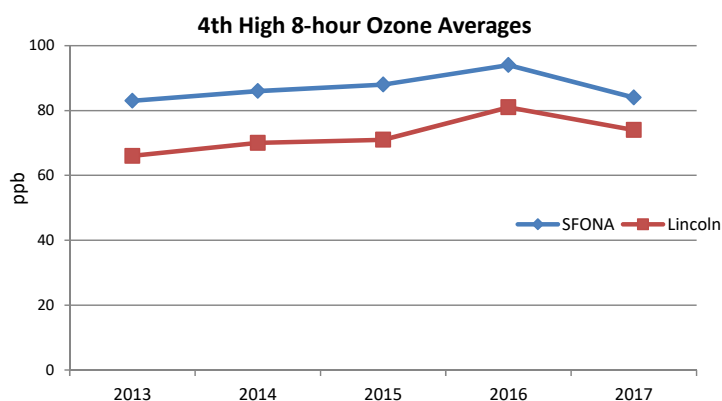


Figure 1 shows that the 4th highest 8-hour ozone average from the old Lincoln site was below the 4th highest 8-hour ozone average at the peak site in the SFNOA. Table 1 below summarizes the 8-hour ozone design values for each of the ozone monitoring sites in the SFNOA from 2013 to 2017. It shows that the old Lincoln site was not the SFNOA's peak site for the years 2013 to 2017.

Table 1 8-Hour Ozone Design Value (ppb) of each site within Sacramento Nonattainment Area

County	Monitoring Site	2013	2014	2015	2016	2017
El Dorado	Cool	81	80	79	82	80
El Dorado	Echo Summit	69	69	n/a	n/a	n/a
El Dorado	Placerville	82	84	81	85	83
Placer	Auburn	79	78	79	83	84
Placer	Colfax	73	73	73	76	77
Placer	Roseville	81	81	77	80	79
Placer	Lincoln	n/a	n/a	69	74	75
Sacramento	Elk Grove	71	70	66	68	68
Sacramento	Folsom	90	85	80	83	82
Sacramento	North Highlands	76	75	73	77	78
Sacramento	Del Paso Manor	77	77	76	77	77
Sacramento	Goldenland Ct.	70	71	69	71	n/a
Sacramento	T Street	69	69	68	69	69
Sacramento	Sloughouse	84	80	76	79	78
Solano	Vacaville	67	66	66	67	67
Yolo	UC-Davis	66	64	62	64	63
Yolo	Woodlands	69	68	67	69	69
	Peak Site*	90	85	81	85	84

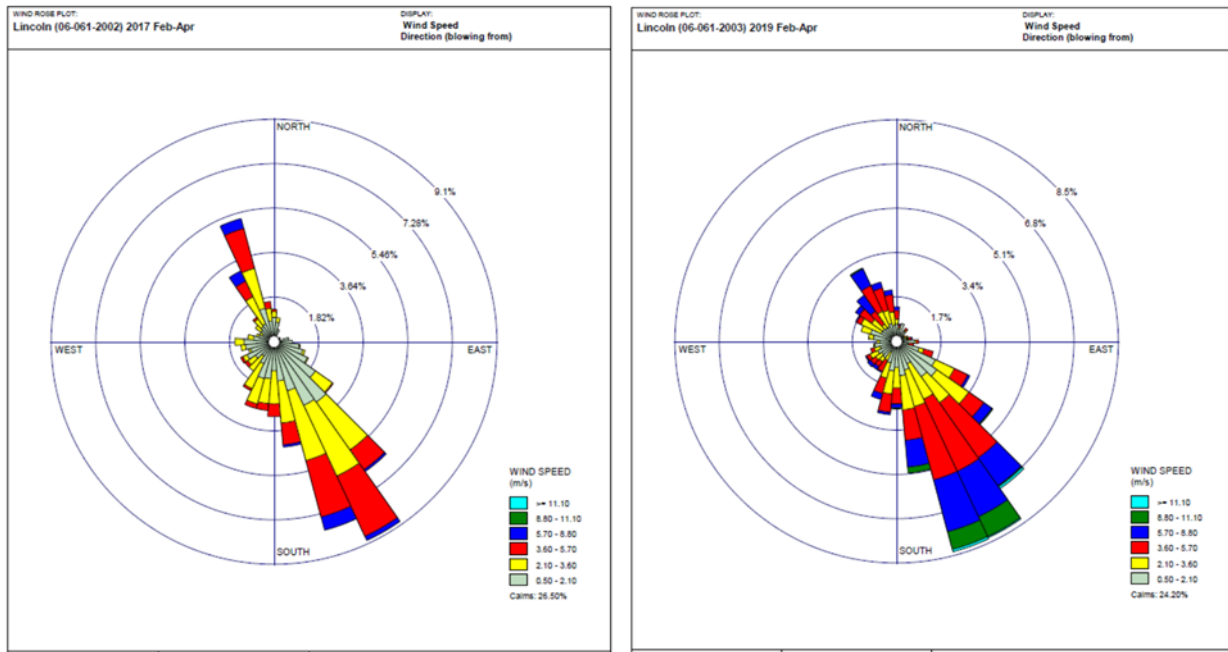
*Peak site for each year is highlighted.

The above Figure 1 and Table 1 confirm that the old Lincoln site was not the peak site for recording the highest ozone concentration measurements in SFNOA and Placer County. The site closure will not jeopardize the data collection for the SFNOA for implementation of the federal ozone ambient air quality standard.

Following the old Lincoln site's closure, PCAPCD searched the Lincoln area for a new site location. PCAPCD signed an agreement with the City of Lincoln (City) in August 2018 to build a new monitoring station on a City-owned property. The new Lincoln monitoring site is located approximately 2.3 miles southwest of the 1445 1st Street site. The new Lincoln site has a shelter installed on the property that houses a FEM ozone analyzer and a non-FEM PM2.5 monitor. The sampling probe was installed on the shelter's roof with open terrain free from trees and other obstructions in all directions. The new site is named Lincoln-2885 Moore Road with a new AQS site ID 06-061-2003. Attachment 1 includes photos of the Lincoln-2885 Moore Road site, along with a Google Earth schematic showing the spatial relationship between the 1445 1st Street site and the 2885 Moore Road site.

Due to challenges in securing a new location prior to the old Lincoln site's closure, PCAPCD was not able to conduct parallel monitoring at the old and new Lincoln monitoring sites. With the lack of data from parallel monitoring, PCAPCD conducted a wind pattern analysis by using the on-site wind data collected at both the old and new Lincoln sites. PCAPCD used the data collected from February to April, as it is the last 3-month period from the new Lincoln site. Figure 2 shows two Wind Rose plots based on wind data collected by the on-site BAM1020 between February and April in 2017 and 2019 at the old and new Lincoln sites, respectively.

Figure 2 Wind Rose Plots at old and new Lincoln site in 2017 and 2019



The Wind Rose plots show that the wind patterns at the old Lincoln site and the new Lincoln site are similar. The dominant wind direction for both locations is southeast. The new Lincoln site shows higher wind speed measurements which could be because of the wide-open terrain surrounding the site.

In addition, three-months (from February to April) of ozone hourly concentrations measured from the nearby monitoring site (Roseville N-Sunrise site, AQS site ID: 06-061-0006), from 2017 and 2019, have been used in the analysis to identify whether the new Lincoln site location represents the same scale of ozone data in the Lincoln area. Figure 3 shows the regression analysis for the ozone hourly data from the old Lincoln site and the Roseville site between February and April in 2017. Figure 4 shows the regression analysis for the ozone hourly data from the new Lincoln site and the Roseville site between February and April in 2019.

Figure 3 Ozone data from old Lincoln Site and the Roseville site in February-April 2017

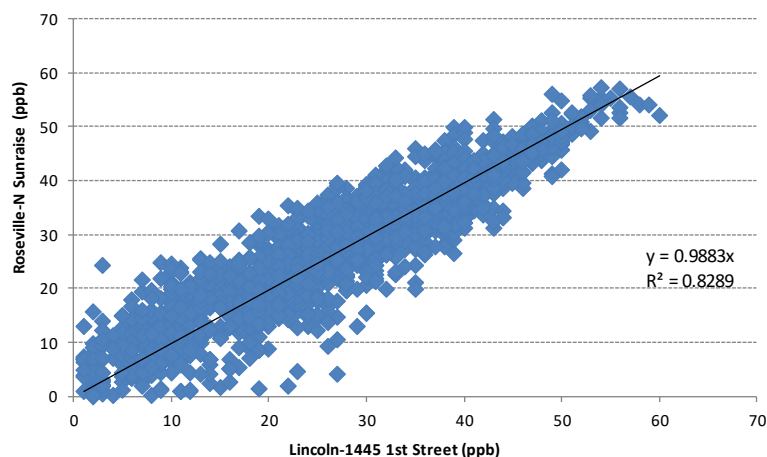


Figure 4 Ozone data from new Lincoln Site and the Roseville site in February-April 2019

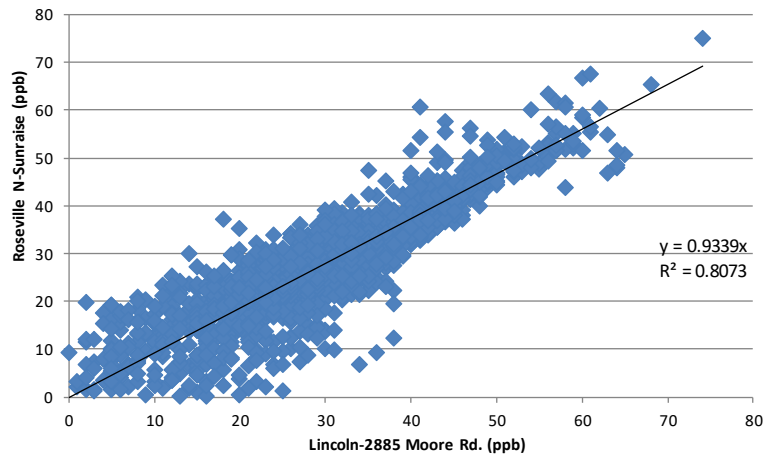


Figure 3 and Figure 4 show that the ozone data from the old Lincoln site and the new Lincoln site have similar relationships with the ozone data from the Roseville site. Although no parallel monitoring data is available, using the ozone data from a nearby site to conduct a regression analysis with the ozone data from the old and new Lincoln sites in the same 3-month period is an alternative method of identifying that the ozone data from the new Lincoln site is not significantly different than the ozone data from the old Lincoln site. The on-site Wind Rose plots along with the regression analysis for ozone data appears to provide conclusive evidence that the new Lincoln site will continue providing representable ozone measurements for the Lincoln area.

PCAPCD has presented the analyses to demonstrate that 1) the closure of the old Lincoln site will not compromise data collection for implementation of the federal ozone ambient air quality standard in SFONA; and 2) the new Lincoln site will continue providing ozone measurements for the Lincoln area with the same scale of representation. Accordingly, PCAPCD is requesting formal approval for 1) the discontinuation of the Lincoln 1445 1st Street site (site ID: 060612002); and 2) the new site at Lincoln 2885 Moore Road (site ID: 060612003). Attachment 2 includes the detailed site information tables for both sites. With U.S. EPA's approval, PCAPCD will provide the final documentation to CARB for the State Annual Monitoring Network Plan update.

Sincerely,

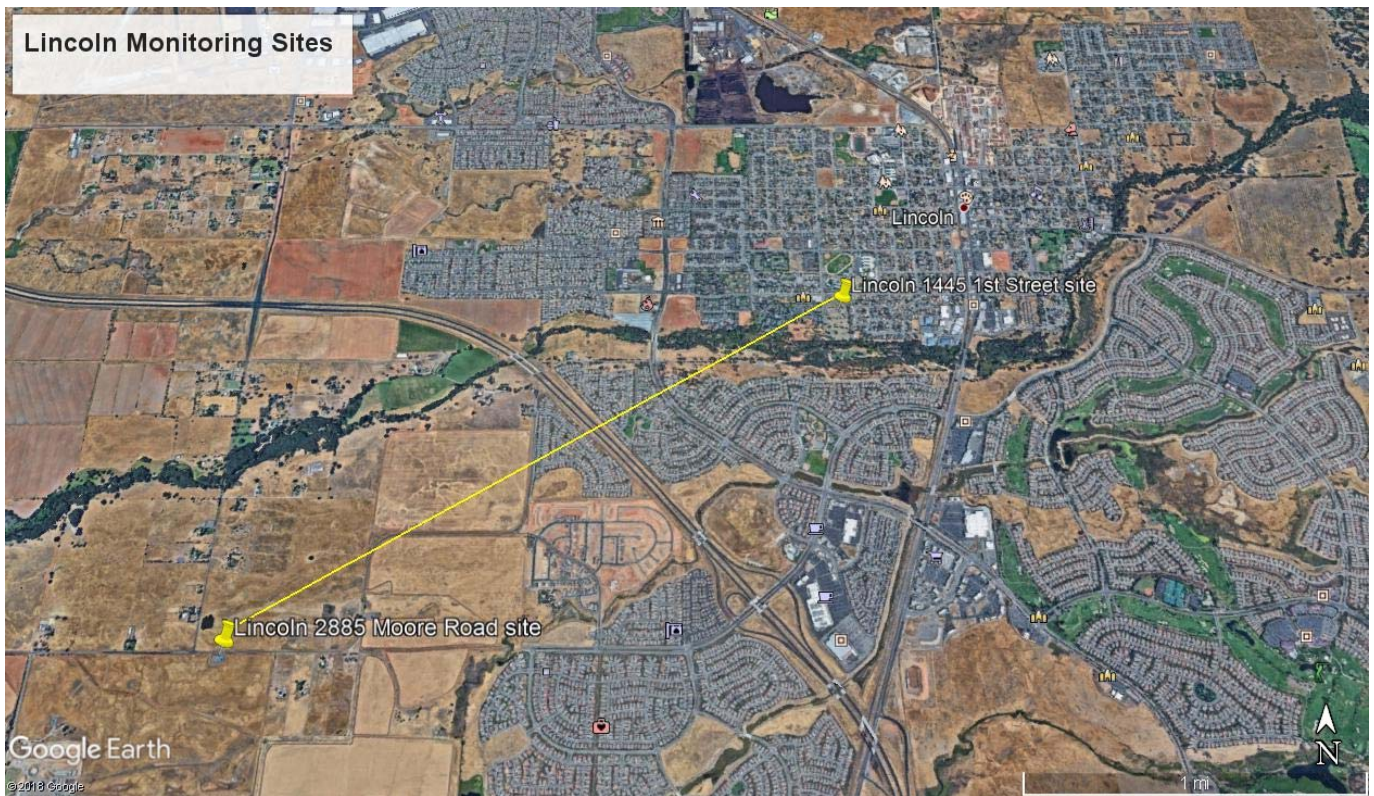
Yushuo Chang
Planning & Monitoring Section Manager

Cc: Jin Xu, CARB
Grace Tuazon, CARB
Erik White, PCAPCD

Attachment 1

Lincoln 2885 Moore Road Site (AQS ID: 060612003)
Schematic and Site Photo Documentation

PCAPCD Lincoln Monitoring sites



Lincoln 2885 Moore Road site (AQS Site ID: 060612003)



Looking south from the probe



Looking north from the probe



Looking west from the probe



Looking east from the probe



Looking shelter and probe from north



Looking shelter and probe from west



Looking shelter and probe from east

Attachment 2

Detailed Site Information

Local Site Name:	Lincoln-1st Street
AQS ID:	06-061-2002
GPS Coordinates:	38.885559, -121.30199
Street Address:	1445 1st Street, Lincoln, 95648
County:	Placer
Distance to roadways (meters):	730 meters
Traffic Count Notes:	22000 AADT
Ground Cover:	Grass
Representative statistical area name (i.e. MSA, CBSA, other):	Sacramento-Roseville-Arden-Arcade Metropolitan Statistical Area

Pollutant, POC	Ozone, 1	PM2.5, 3		
Primary, QA-Audit, Supplementary, or N/A	Primary	Primary		
Parameter Code	44201	88501		
Basic monitoring objective(s)	NAAQS	Public Information		
Site type(s)	Population	Population		
	Exposure	Exposure		
Monitor type(s)	SLAMS	SLAMS		
Instrument manufacturer and model	Teledyne API 400	Met One BAM1020		
Method code	87	731		
FRM/FEM/ARM/Other	FEM	Other		
Collecting Agency	Placer County APCD	Placer County APCD		
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A		
Reporting Agency	Placer County APCD	Placer County APCD		
Spatial scale	Neighborhood	Neighborhood		
Monitoring start date	12/21/2012	12/21/2012		
Current sampling frequency	Continuous	Continuous		
Required sampling frequency including exceptional events	N/A	N/A		
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec		
Probe height (meters)	4.2	7.5		
Distance from supporting structure (meters)	1.1	2.2		
Distance from obstructions on roof (meters)	No obstructions	No obstacles		
Height above probe for obstructions on roof (meters)	N/A	N/A		
Distance from obstructions not on roof (meters)	No obstructions	No obstructions		
Height above probe for obstructions not on roof (meters)	N/A	N/A		
Distance to nearest tree drip line (meters)	>10	>10		
Distance to furnace or incinerator flue (meters)	N/A	N/A		
Distance between monitors fulfilling a QA collocation requirement (meters)	N/A	N/A		
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360		
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A		
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	12.3	N/A		
Will there be changes within the next 18 months?	No	No		
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	No		
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A		
Frequency of flow rate verification for automated PM analyzers	N/A	Monthly		
Frequency of one-point QC check for gaseous instruments	Every 8-10 days	N/A		
Date of Annual performance evaluation conducted in the past calendar year for gaseous parameters	7/12/2016	N/A		
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	1/27/2016 7/12/2016		

Local Site Name:	Lincoln Moore Street			
AQS ID:	06-061-2003			
GPS Coordinates:	38.86794, -121.33835			
Street Address:	2885 Moore Road, Lincoln, 95648			
County:	Placer			
Distance to roadways (meters):	0			
Traffic Count Notes:	0			
Ground Cover:	Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other):	Sacramento-Roseville-Arden-Arcade Metropolitan Statistical Area			
Pollutant, POC	Ozone, 1	PM2.5, 3		
Primary, QA-Audit, Supplementary, or N/A	Primary	Primary		
Parameter Code	44201	88501		
Basic monitoring objective(s)	NAAQS	Public Information		
Site type(s)	Population Exposure	Population Exposure		
Monitor type(s)	SLAMS	Other		
Network affiliation(s)	N/A	N/A		
Instrument manufacturer and model	Teledyne API 400	Met One BAM1020		
Method code	87	731		
FRM/FEM/ARM/Other	FEM	Other		
Collecting Agency	Placer County	Placer County		
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A		
Reporting Agency	Placer County	Placer County		
Spatial scale	Neighborhood	Neighborhood		
Monitoring start date	11/1/2018	11/1/2018		
Current sampling frequency	Continuous	Continuous		
Required sampling frequency including exceptional events	N/A	N/A		
Sampling season	1-Jan - 31-Dec	1-Jan - 31-Dec		
Probe height (meters)	3.6	4.4		
Distance from supporting structure (meters)	1.1	2.2		
Distance from obstructions on roof (meters)	No obstructions	No obstacles		
Height above probe for obstructions on roof (meters)	N/A	N/A		
Distance from obstructions not on roof (meters)	No obstructions	No obstructions		
Height above probe for obstructions not on roof (meters)	N/A	N/A		
Distance to nearest tree drip line (meters)	>10	>10		
Distance to furnace or incinerator flue (meters)	N/A	N/A		
Distance between monitors fulfilling a QA collocation requirement	N/A	N/A		
Unrestricted airflow (degrees around probe/inlet or % of monitoring path)	360	360		
Probe material for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A		
Residence time for reactive gases NO/NO2/NOy, SO2, O3; PAMS: VOCs, Carbonyls (seconds)	N/A	N/A		
Will there be changes within the next 18 months?	No	No		
Is it suitable for comparison against the annual PM2.5 NAAQS?	N/A	No		
Frequency of flow rate verification for manual PM samplers, including Pb samplers	N/A	N/A		
Frequency of flow rate verification for automated PM analyzers	N/A	Monthly		
Frequency of one-point QC check for gaseous instruments	Every 8-10 days	N/A		
Date of Annual performance evaluation conducted in the past calendar year for gaseous	N/A	N/A		
Date of two semi-annual flow rate audits conducted in the past calendar year for PM monitors	N/A	N/A		

Appendix E

Summary of Public Comments and CARB Responses

The Annual Network Plan was made available for a 30-day public review from June 5 to July 5, 2019, and no comment was received.

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